Government of Jammu and Kashmir
J&K Services Selection Board
Zum Zum Building, Rambagh,
Srinagar
(www.jkssb.nic.in)
****

NOTICE

(WRITTEN TEST & SYLLABI for the Posts - advt. no. 01, 02 and 03 of 2016)
****

It is notified for the information of all concerned that:

1. J&KSSB intends to conduct WRITTEN-TEST for various posts advertised under Notification No. 01, 02 & 03 of 2016, in the near future.
2. For this purpose, all these posts have been grouped into 26 (twenty six) BATCHES (Refer table provided in Annexure "A").The posts which are part of the same BATCH, share a common/single SYLLABUS.
3. Syllabus related to each of the 26 batches stands published / notified in the past.
4. These SYLLABI are made again available on the SSB website i.e., www.jkssb.nic.in annexed to this notice.

Sd/-
(S.A Raina), KAS,
Secretary,
J&K Services Selection Board,
Srinagar.

No. SSB/ /Sel/Secy/2016/ 19096-104 **Dated: 24-08-2016.**

Copy for information to the:-

1. Principal Secretary to Hon'ble Chief Minister J&K.
2. Principal Secretary to the Hon'ble Governor, J & K State.
3. Director Information, J&K Government Srinagar with the request to publish the above notification in at least three leading local newspaper of Jammu/Srinagar on three consecutive dates
4. Director, Radio Kashmir, Kashmir. He is requested to kindly broadcast the above said notification appropriately.
5. Director, Doordarshan Kashmir. He is requested to kindly telecast the above said notification appropriately.
6. Sr. Law Officer, J&K S.S.B., Srinagar/ Jammu
7. Administrative Officer, Service Selection Board, Jammu/Srinagar.
8. Private Secretary to Ld. Chairperson for information of Ld. Chairperson .
9. Incharge Website, SSB. He shall upload the notice on the official website of the Board.

Annexure "A"

SYLLABUS and BATCHES for the posts advertised vide advt. notification no. 01 of 2016, 02 of 2016 and 03 of 2016

Sno	Post	Department	Batch	Type	Appended at
1	**Jr Grade Nurse**	Health and Med. Edu. Deptt.	**1**	**Specific**	**Annexure 1**
2	**Jr. Nurse**	Health and Med. Edu. Deptt.			
3	**Jr. Staff Nurse**	Health & Medical Education Deptt			
4	**Pharmacist-Dawasaz**	Health and Med. Edu. Deptt.	**2**	**Specific**	**Annexure 2**
5	**Horticulture Technician IV**	Agriculture Production Deptt / Agriculture Deptt	**3**	**Specific**	**Annexure 3**
6	**Jr. Librarian**	School Education Deptt	**4**	**Specific**	**Annexure 4**
7	**Library Assistant**	Higher Education / School Education Deptt			
8	**Health & Family Welfare Assistant**	Health & Medical Education Deptt	**5**	**Specific**	**Annexure 5**
9	**Jr. Pharmacist**	Health & Medical Education Deptt			
10	**Auditor Induscos**	Industries & Commerce	**6**	**10+2 level**	**Annexure 6**
11	**Band-saw Mistry**	Ind. & Com (I&C)			
12	**Book Picker**	H&ME Deptt			
13	**Care Taker**	Health & Medical Educaton Deptt			
14	**Central Sterlization System Department Technician (CSSD)**	Health & Medical Education Deptt			
15	**Craft Assistant**	Social Welfare Deptt			
16	**Craft Assistant (Male)**	Social Welfare Deptt			
17	**Craft Teacher**	Social Welfare Deptt			
18	**Craft Teacher (Female)**	Social Welfare Deptt			
19	**Craft Teacher (Male)**	Social Welfare Deptt			
20	**Craftsman Leather**	Ind. & Com (I&C)			
21	**Female Receptionist**	Health & Med. Edu. Deptt			
22	**Jr Opthalmic Technician**	Health Department			
23	**Jr. Central Sterlization System Department Technician (JCSSD)Technician**	Health & Medical Education Deptt			
24	**Jr. ECG Technician**	Health & Medical Education Deptt			
25	**Jr. Lab Technician**	Health and Med. Edu. Deptt.			
26	**Knitting Instructor**	Industries & Commerce			
27	**Lab Assistant**	Education Department / School Education Deptt			
28	**Medical Record Technician**	Health & Medical Education Deptt			
29	**Senior Radio Therapy Technician**	Health & Medical Education Deptt			
30	**Sr. ECG Technician**	Health & Medical Education Deptt			
31	**Teacher**	School Education Deptt			
32	**Telephone Operator**	Health & Medical Education Deptt			
33	**Village Level Worker**	Rural Dev Deptt			
34	**Vocational Instructor jewlery & Precious**	Technical Education Department			
35	**Charographer**	Hr. Education Department			
36	**Jr. Theatre Assistant**	Health & Medical Educaton Deptt	**7**	**Specific**	**Annexure 7**
37	**Jr. Theatre Technician**	Health & Medical Educaton Deptt			
38	**Theater Assistant**	Health & Medical Education Deptt			
39	**Theatre Assistant-II**	Health & Medical Educaton Deptt			
40	**Jr. X-Ray Technician**	Health and Med. Edu. Deptt.	**8**	**Specific**	**Annexure 8**

41	**X-Ray Assistant**	Health & Medical Education Deptt			
42	**Anaesthesia Assistant**	Health & Medical Educaton Deptt	**9**	**Specific**	**Annexure 9**
43	**Enforcement Inspector**	Industries & Commerce Department	**10**	**Specific**	**Annexure 10**
44	**Legal Assistant**	Law Deptt.			
45	**Presenting Officers**	Law Department			
46	**Prosecutor**	Consumer Affairs and Public Distribution Deptt			
47	**Jr Physiotherapist**	Health and Med. Edu. Deptt.	**11**	**Specific**	**Annexure 11**
48	**Physical Education Teacher**	Technical Education/YSS Deptt.	**12**	**Specific**	**Annexure 12**
49	**FMPHW**	Health & Medical Educaton Deptt	**13**	**Specific**	**Annexure 13**
50	**Dental Assistant/Junior Dental Technician**	Health & Medical Education Deptt	**14**	**Specific**	**Annexure 14**
51	**Draftsman (Civil)**	PHE/I&FC Department	**15**	**Specific**	**Annexure 15**
52	**Election Assistant**	Election Department	**16**	**Specific**	**Annexure 16**
53	**Etcher Artist**	ARI and Training	**17**	**Specific**	**Annexure 17**
54	**JSA**	Industries & Commerce	**18**	**Specific**	**Annexure 18**
55	**Sr. Grade Nurse**	Health & Medical Education Deptt	**19**	**Specific**	**Annexure 19**
56	**Supervisor**	Social Welfare	**20**	**Specific**	**Annexure 20**
57	**Vocational Instructor Mechanic Industrial Electronics**	Technical Education Department	**21**	**Specific**	**Annexure 21**
58	**Assistant PTI**	Higher Education	**22**	**Specific**	**Annexure 22**
59	**A.V Aida Mechanic**	Technical Education/YSS Deptt.	**23**	**Matric level**	**Annexure 23**
60	**Assistant Mechanic Man**	Health & Medical Education Deptt			
61	**Bioler Mechanic**	Technical Education/YSS Deptt.			
62	**Calico Instructor**	Ind. & Com (Handicrafts)			
63	**Cleaner**	Agriculture Production Department			
64	**Culture Assistant (Jr.scale)**	Information Department			
65	**Head Weaver**	Ind. & Com			
66	**Instructor Clay Moulding Ladakh**	Industries & Commerce Department			
67	**Jr. Craft Instructor (Carpet Weaving)**	Ind. & Com (Handicrafts)			
68	**Jr. Craft Instructor (Crewal)**	Ind. & Com (Handicrafts)			
69	**Jr. Craft Instructor (Gubba Emb)**	Ind. & Com (Handicrafts)			
70	**Jr. Craft Instructor (Leather)**	Ind. & Com (Handicrafts)			
71	**Jr. Craft Instructor (Meena Kari)**	Ind. & Com (Handicrafts)			
72	**Jr. Craft Instructor (Silverware)**	Ind. & Com (Handicrafts)			
73	**Jr. Craft Instructor (Wood Carving)**	Ind. & Com (Handicrafts)			
74	**Jr. Craft Instructor (Zari)**	Ind. & Com (Handicrafts)			
75	**Junior Instructor Carpet**	Industries & Commerce			
76	**Junior Instructor Chain Stich**	Industries & Commerce			
77	**Junior Instructor Darning**	Industries & Commerce			
78	**Junior Instructor Gabba**	Industries & Commerce			
79	**Junior Instructor Lathe-Cum-Lacquer**	Industries & Commerce			
80	**Junior Instructor Paper Machie**	Industries & Commerce			
81	**Junior Instructor Paper Pulp**	Industries & Commerce			
82	**Junior Instructor Sozni**	Industries & Commerce			
83	**Junior Instructor Stapple**	Industries & Commerce			
84	**Junior Instructor Wood Carving**	Industries & Commerce			
85	**Junior Yatchman**	Tourism Department			
86	**Lathe Runner**	ARI and Training			

87	**Opthalmic Assistant**	Health & Medical Education Deptt			
88	**Outturn Checker**	ARI & Trainings			
89	**Plumber**	Technical Education Department			
90	**Projectionist**	Health & Medical Education Deptt			
91	**Pump Operator**	Tourism and Culture			
92	**Refrigerator Mechanic**	Health & Medical Education Deptt			
93	**Room Bearer**	Hospitality & Protocol			
94	**Senior Craft Instructor (Chain Stitch).**	Industries & Commerce			
95	**Senior Craft Instructor Bamboo**	Industries & Commerce			
96	**Senior Craft Instructor Lathe-Cum-Lacquer**	Industries & Commerce			
97	**Senior Craft Instructor Phoolkari**	Industries & Commerce			
98	**Senior Craft Instructor Tepestry**	Industries & Commerce			
99	**Senior Craft Instructor, Leather Embroidery.**	Industries & Commerce			
100	**Sr. Craft Instructor (Carpet Weaving)**	Ind. & Com (Handicrafts)			
101	**Sr. Craft Instructor (Sozni)**	Ind. & Com (Handicrafts)			
102	**Sr. Craft Instructor (Stapple)**	Ind. & Com (Handicrafts)			
103	**Sr. Craft Instructor (Wood Carving)**	Ind. & Com (Handicrafts)			
104	**Sr. Craft Instructor Calico**	Industries & Commerce			
105	**Sr. Craft Instructor Chain Stitch**	Industries & Commerce			
106	**Sr. Craft Instructor Crewel**	Industries & Commerce			
107	**Stock Assistant**	Animal/Sheep Husbandry Deptt			
108	**Technician III**	Power Development Department			
109	**Telephone Operator**	Hospitality and Protocol Deptt.			
110	**Upholster**	Health & Medical Education Deptt			
111	**Upholster**	Transport			
112	**Veterinary Pharmacist**	Animal/Sheep Husbandry Deptt			
113	**Vocational Instructor (Cutting & Sewing trade)**	Technical Education/YSS Department			
114	**Warper-cum-Winder**	Ind. & Com.			
115	**Works Supervisor**	Tourism & Culture Deptt			
116	**Workshop Lab Assistant**	Higher Education			
117	**Cleaner (Advertised vide Notification No. 03 of 2016 (Item No. 221 & 374))**	Agriculture Production Department			
118	**Accounts Asstt.**	Finance Deptt.	**24**	**Graduation Level**	**Annexure 24**
119	**Assistant Cameramen**	Information Department			
120	**Designer**	Industries and Commerce Deptt.			
121	**Health Educator**	Health & Medical Education Deptt			
122	**Jr. Supervisor / Sub-Auditor**	Co-operative Department			
123	**Key Punching Operator**	Planning & Dev Deptt			
124	**Laboratory Technician**	Agriculture Production Deptt			
125	**Telephone Operator**	Agriculture & Production Department			
126	**Speech Therapist/ Path/ Audio Technician**	Health & Medical Education Deptt			
127	**Jr Occupational Therapists**	Health & Medical Education Deptt			
128	**Cleaner (Advertised vide Notification No. 03 of 2016 (Item No. 195)**	Consumeer Affairs and Public Distribution Deptt.	**25**	**Middle(8^{th}) level**	**Annexure 25**
129	**Technician III**	Power Development Department	**26**	**Specific**	**Annexure 26**

(S.A Raina), KAS,

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Annexure "1"

Sub: Syllabus for written test (Objective Type) for the above the posts of JUNIOR GRADE NURSE / JUNIOR NURSE / JUNIOR STAFF NURSE

Marks :-150
Time :- 2.30 Hours

ANATOMY PHYSIOLOGY — 15 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
  Nervious System - Structure and Function of :-
  (a) Central Nervious System.
  (b) Autonomic Nervious System.
- Endoerine System - Structure, Function of Pituitary Glands.
- Sense Organs - Ear, Eye, Nose, Structure and Function.
- Female Reproductive System- Structure, Functions, Accessory Organs, Menstural Cycle, Menopause and process of Reproduction
- Male Reproductive System- Structure and Functions.

MICROBIOLOGY — 05 Marks

- Bacterialogy, Microbiology usefulness in Nursing.
  - **Common disease caused by different types of organisons.**
  - **Sources ofinction, made of exit and transmission of disease,**
  - **Immunity and Immunization schedule.**
  - **Disinfection**
  - **Sterilization.**
  - **Asepsis.**

PSYCHOLOGY — 07 Marks

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

SOCIOLOGY — 03 Marks

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

NURSING ARTS NUTRITION 35 Marks

- **Fundamentals of Nursing**
- **Nurses qualities, def, nursing principals, scope of Nursing.**
  - ***History of Nursing.***
  - ***Role and responsibility of a Nurse.***
  - ***Components of Bsis Bursing.***
  - ***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, k nuses procedure for bed making.**
  - ***Vitals -Temperature, pulse, respiration, B.P (ded, 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.***
  - ***Rlyes tube feeding - Indication equipments procedure suction,***
  - ***Stomach wash or gastric lavage Def. indication procedure purpose, equipments.***
  - ***Catherization - Indication purpose, procedure articles, types of catheter,***
  - ***Enema-Def types, indication, procedure, equipments,***
  - ***Flatus tube - Def. purpose, procedure, equipments,***
  - ***Gaginal douche - Def. purposes, Sol, used, procedure equipments. Local hot application - Def purpose, types, equipments 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 (Unconcious patient) Dyspnoea.***
  - ***Barrier Nursing - Isolation, technique, Control of infection diseases, immunization.***
  - ***First Aid of Burns,***
    Accident,
    Haemorrhage,
    Fractions.
- **Various Bandages.**
  - ***Blood Transfusions - Grouping Crossmating***
  - ***RH factor, Precautions - Blood Transmission.***
- **Recording and Reporting**
- **Collection of Specimen.**
- **Drugs route of Administration of drugs.**

NUTRITION 10 Marks

- **Constituents of food and its function**
  - ***Protene, EHO, fats, minerals, vitamins, waterthen 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 menui.***

- ***Factors effecting coming.***
- ***Presentation of mal nutrition.***
- ***Health problems in India (Nutrational problems)***
  - ***Communicable disease prob.***
  - ***Population Prob.***
  - ***Environmental suction Prob.***
  - ***Medical care Prob.***

➢ **Community Health Nursing:**

- ***Definition and concent of health ad 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 hugience.***
- ***Mental health.***

➢ **First Aid in Emergency.**

- ***Importance of First Aid and its rules:***
- ***First Aid Emergency. Fire, Burns, Fractures, Accidents, Poisoning, Bullet injuries, Drawing, Hoemarrhages, Dog Bites.***
- ***Bandaging and splinking.***

Medical Surgical Nursing 25 Marks

➢ **Disorders of Respiratory system:-**

➢ **Definitions, causes, types, factors, indications, investigations, treatment, NSG, Management, Prevention, Health Education, Complications of:-**

- ***Asthma/Bronchial.***
- ***Pnemonia.***
- ***Lung Abscess.***
- ***Plaursy.***
- ***Emphyma.***
- ***Emphysema.***
- ***Pulmonary Tuberculosis.***
- ***Lobactomy.***
- ***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.**

- **Nervious System-Spinal Card, Nervious:**
  - **Epilepsy.**
  - **Meningitis.**
  - **Parkinsonisom.**
  - **Encephalitis.**
  - **Head Injury.**
  - **Cerebro - Vascular Accident.**
  - **Paraplegia.**
  - **Haemoplegia.**
  - **Quardriplegia.**
  - **Sciatica.**

- **Endrocrine System, Metabolic Disorder:**
  - **Hypothyrodism.**
  - **Hyperthyrobism.**
  - **Thyrodictomy.**
  - **Diabtes Mellitus.**
  - **Gouts.**
  - **Obesity.**

- **Skin:**
  - **Burn including radition 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, Paracentisis, Thoracynthesis, LFT, Endoscopy, Sigmoclocopy, Bronehosocopy, Intercostal Drainage, H20 Drainage, Review of Vitals.**
- **Communicable Diseases:**
  - **Meascles, Chickenpox, Smallpox, Mumps, Poliomyelitis, Diptheria, Wooping Cough, Telanus, Leprosy, Typhoid, Dysentry, Cholera, Plague, Malaria, Dengu, Fever, AIDs, Pulse Polo, National Health Programme/ Problems.**

ORTHOPAEDIC 20 Marks

- **Disorders and Dieases of Bone and Joints.**

  (Def. causes, types, preparation, investigations, indications, management).
  - **Arthritis.**
  - **Osteomyelitis.**
  - **Rheunatuid Arthritis.**
  - **Fractures, Dislocations, Sprains.**
  - **Amiulation.**
  - **Traction.**
  - **Casts.**

- **Special senses (Eye, ENT, Ear)**
  - **Conjunctivists.**
  - **Dacro - Cystitis.**
  - **Glaucoma.**
  - **Trachoma.**
  - **Myopia.**
  - **Hypermetropia.**
  - **Cataract.**
  - **Corneal Ulcer.**
  - **Otitis Media.**
  - **Mastoiclitis.**
  - **Clift Lip.**
  - **Clift Palate.**
  - **DNS. S**
  - **Sinasitis.**
  - **Adenoids.**
  - **Laiyngitis.**
  - ***Tonsilitis/Tonsilectomy.***
  - ***Phyryngitis.***
  - ***Tracheostomy.***
  - ***Epistais.***
  - Phychaitric Nursing
  - ***Depression.***
  - ***Hallucination.***
  - ***Delusion.***
  - ***Scheziophslia.***
  - ***Psychosis.***
  - ***Nerosis.***
  - ***Hyteria.***
  - ***Epilopsy.***
  - ***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 - Vomitting, Dirrhaea, Convulsions, Distensions.***
  - ***Recognition, causes, prevention and management of congenital anomalies.***
  - ***Breast feedin:***
    - **Importance and principals.**
    - **Preparation of mother.**
    - **Difficulties in breast feeding.**
    - **Factors inhibiting/ promotion lactation.**
    - **Introduction of sosids.**
    - **Artificial feeding:**

- **Maintenance of bottle hygiene.**
- **Feeding techniques.**

- **Disease of Childrens:**
- **Def. causes s/s investigations, factors indications; prevention, management complications of :-**
  - ***Gastro - entoritis.***
  - ***Oeasophogal Atresia.***
  - ***Mega Colon.***
  - ***Imperferated Anus.***
  - ***Jaundice.***
  - ***Phototherapy.***
- **Benito - Urinary System:**
  - ***Hypospodiasis.***
  - ***Undesecndel Tests.***
- **Cardio Vascular System:**
  - ***Patient Duetus Arteriosus.***
  - ***Atrial Septal Defect.***
  - ***Ventricular spetal Defect.***
  - ***Fallots Telrology.***
  - ***Rheumative Fever.***
- **Nervous System:**
  - ***Cerebral Pulsy.***
  - ***Mental Retardation.***
  - ***Meningocele.***
  - ***Mangolism.***
  - ***Hydrocephalus.***
- **Eye, Ear:**
  - ***Squint.***
  - ***Deafness.***
- **Components of nutrition and Disorders:**
  - ***Marasmas.***
  - ***Kwashiorkar.***
  - ***Vitamin Dificencies.***
  - ***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.***

- ***Brest Palpation.***
- ***Introduction of RCH.***

- **Human Sexuality:**
  - ***Puberity in male and female.***
  - ***Importance of sex education and sex hygiene.***
  - ***Different nethods of family planning.***
  - ***Planning, Organishing 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 Mensturation.***
  - ***Breast Cancer/ Mastectomy***

Midwifery — 30 Marks

- **Introduction of Hisotiral 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 fontanels,***
  - ***Foetal development of foetal circulation,***
  - ***Measurement.***
- **Normal Pregnancy:**
  - ***Physiological changes due to pregnancy,***
  - ***Sings 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 gynaecological.***
  - ***Contracted pelvis***
  - ***Harmon ages*** **>** ***Ante Partum.*** / ***Post Partum.***
  - ***Abortions.***
  - ***Ectopic gestation.***
  - ***Hydrated form Mole.***
  - ***Toxaemia of pregnancy.***
  - ***Polyhydromnias.***

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Annexure "2"

Marks:-150
Time:-2.30 Hours

Syllabus for written test (Objective Type) for the Posts of PHARMACIST-DAWASAZ

1) Anatomy.	10 marks.
2) Physiology.	10 Marks.
3) Hygiene.	05 Marks.
4) Pathology	05 Marks.
5) Family WelfAre /maternal & Child Health.	10 Marks.
6) Basic principles of Ayd / Unani.	
a. Basic Principal of Ayurvedic Medicine.	15 Marks.
b. Basic Princiles of Unani Medicine.	15 Marks.
7) Pharmacology.	
a. Ayurvedic Pharmacology.	10 Marks.
b. Unani Pharmacology (Saidla).	10 Marks.
8) Medicine.	
a. Ayurvedic Medicine.	15 Marks.
b. Unani Medicine.	15 Marks.
9) Eye.	05 Marks.
10) Eye, Nose & Throat (ENT). 05 Marks	
11) Gynae & Obs.	10 Marks.
12) Toxicology.	05 Marks.
13) Surgery.	05 Marks.
Total Marks	**150 Marks**

a) Elementary knowledge of locomotor , Digestive , Respiratory , Circulatory , Excretory, Uro-Genital systems & Sensory Organs of Human body .

b) Knowledge of number of bones , types of bones, viz. long bones, short bones , flat bones & their locations & joints.

c) Knowledge of number of muscles , types of muscles viz. voluntary muscles ,involuntary muscles , particularly gluteal muscles , deltoid muscles , biceps muscles .

d) Personal hygiene, sanitation, ventilation, sterlization , disinfections.

A) Applied aspect of muscles & vessels related with hollow needle method.

B) Basic knowledge of B.P , its recording & handling of apparatus .

C) Recording of pulse , respiration & temperature & their relations .

D) Preparation of blood & sputum slides .

E) Duties & qualities of Dawasaz , utility of apron .

a) Definition of pathology

b) Different types of vaccine & diseases protected by vaccines , different schedules & techniques of vaccination

c) Role of iron folic acid & vitamin –A in MCH programme.

d) Different types of Family Welfare Methods

e) Basic principles of Ayurveda / Unani :-

1. Ayurvedic :- Dosh ,Datu , Mala , Agni
2. Unani:- Arkan , Akhlat , Mizaz.

A) Elementary Knowledge of Churan (safoof) , Vati (qurs & hab) , Asava, Arishta, Bhasmas(kushta) , Aveleh (Majoon & Khameera), panak (sharbat) , Kwath (Kadha) & their doses .

B) Preservation of medicines & various methods of dispensing & labeling of medicines, & dosages of medicines.

C) Weights & measures (Metric Systems) & conversion of traditional weights & measures in metric Systems.

D) Brief description of diseases :

Pyrexia(jwar), diarrhoea, dysentry , jaundice , rheumatism , vomiting , asthma , malaria , typhoid , T.B, influenza, pneumonia, bronchitis, upper respiratory infections , gastritis , worm infestations, scabies , ring worm .

Foreign body in Eye, Ear, Nose & throat.

E) General principles of examination of the patient & methods of lifting and carrying patients , conscious & non conscious .

A) General Measures to be adopted for :- retention of urine , sun stroke , different bites , (snakes , scorpion , insects , dog) , dehydration , hemorrhage , shock.
Food poisoning , carbon monoxide poisoning , poisoning due to different drugs viz. kuchla (nux vomica) , Vatsnabh (aconitie), Sankhia (Arsenic) , Para (mercury), Afeem (opium) , Bhang (cannabis indica), Datura (Datura Stramonium).

B) Asphyxia , techniques of artificial respiration .

C) Elementary knowledge of pains , Renal Colic , Billiary Colic, Intestinal Colic , Appendicitis, Labour Pains , Dysmenorrhoea.

D) Elementary knowledge of inflammation, injury , boil / cellulites, abscess , ulcers, fractures, burns & their management.

E) Techniques of catheterization , enema , stomach wash.

F) Techniques of different types of bandages, suturing, splints, incisions & sterilization.

G) Hollow needle techniques.

H) Signs & symptoms of pregnancy with antenatal & postnatal care.

I) Names of different instruments & their uses & identification.

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Srinagar.

Annexure "3"

"HORTICULTURE TECHNICIAN-IV"

SYLLABUS FOR WRITTEN TEST

Marks :-150
Time :- 2.30 Hours

Soil-General Concept and importance, soil texture (Social Particles): 30 Marks

- Types of Soil- Sandy, Clayey and loam soils and their general properties i.e. water retention, aeration, nutrient status,
- Soils organic matter- meaning, sources and importance.
- Soil reaction- meaning, acidic and alkaline soils concepts, their effect on plant growth and management.
- Plant Nutrients- names of essential macro and micro nutrients, important functions of N,P and K, their deficiency symptoms in plants.
- Manures- definition, different, types and importance (FYM, compost, Green Manure).
- Fertilizers- Definition, names of common NPK fertilizers, their nutrient percentage, recommended NPK doses for paddy, maize, sarson, Wheat, Apple and Cherry trees grown in Jammu & Kashmir, their mode and methods of application.
- Soil Testing- and its importance.
- Soil erosion- causes, types of erosion, soil conservation a methods with reference to J&K State.
- Introductory Botany.
- Plant parts, root, leaf, stem, flower and their functions
  Modified plant parts with functions,
- Photosynthesis and Importance.
- Seed Structure, Importance, Conditions necessary for germination, Minimum Standards for seed certification, Breeder foundation and certified seed.
- Self and cross- Pollination.
- Elementary studies of following plant families of economic importance.
  - Graminance (Padey and Maize)
  - Rosacae (Apple)
  - Solanacea (Tomato)
  - Cucurbitaceae
  - (Bottlegourd)
  - Leguminacca (Pea)

Plant protection fundamentals: 30 Marks

- Definition of disease and their causes

- Symptomology (leaf spot, wilt, blight, mildew, scab etc.)
  Different management Methods
- Fungicides: Definitions, types, formulations, names of common fungicides used in Jammu & Kashmir; care in handling.
- Plant protection equipment, spraying and dusting machines, their working, calibration and maintenance,
- Definition of insect pest, general morphology of insect
  Different insect pest viz, borera, bug, gesed, their
- Economic threshold values
- Insecticides, definition, types. Formulation, names of common insecticides used in Kashmir, cadre in handling.
- Insect pest management methods.
  Extension Education
    - Agri. Extension Education Definition and Importance. Principles, Objectives.
    - Qualities and role of Extension Worker
    - Extension teaching Methods; Classification, approaches i.e., individuals, Group, Mass, discussions, pamphlets, bulletins, charts, diagrams, exhibitions, campaigns, Kissan mela.
    - Brief description of IRDP, SFDA, IAQP, NAEP, KVK with social reference to
    - J&K STATE
    - Farm Planning
    - Village Panchayat and its functions
    - Collections of socio- Economic data; kind of schedules

Nursery Management and propagation — 35 Marks

- Location, Soil, fencing, nearness to water source, layout of seed bed, nursery bed, stool bed, stratification.
- Building nursery store and workshop, Store and workshop, tools and implements. Maintenance of nursery.
- Selection of mother plant for bud wood, root stock.
  Budding, grafting, layering
- Fruit production
- Selection of Orchard site.
  Layout of Orchard.
- Orchard floor Management
  Planting, Training, Pruning.
- Cultural Practices including irrigation.
- Cultivation of Apple, Pear, Cherry, Plum, Grapes, Almond, Walnut, Strawberry, Mango and Guava Under following headings;
- Soil, Commercial varieties, pacing, fertilizers, irrigation, harvesting, yield.

Orchard Diseases — 25 Marks

- Major diseases, Symptoms, damaging stage and control measures of;
- Apple and pear viz; Scab, Leaf Spot, Mildew Canker. Viz; Stone fruits (Peach, Plum, Apricot, Cherry, Almond) viz Blight and leaf pots.

- Walnut viz; Mistletoe etc
- Grapes viz; Anthrocnose, Mildews.
  Plants protection –(B)
- Major Insect Pests, damaging stage, Symptoms and control measures with respect to following fruit plants (under Jammu and Kashmir Conditions);
- Apple and Pear viz; Sanjose Scale, Borer, Leaf Minor, Aphids mites, Caterpillars.

- Stone fruits (Peach, Plum, Cherry, Almond, Walnuts) viz; Leaf curing aphids, Chaffer beetle etc.
- Pomegranate viz; Anar butter fly.

Physiology (Introductory) — 15 Marks

- Introduction to the subject of postharvest technology; nature and extent of postharvest losses in fruits; Factors responsible for post harvest loss. Factors affecting rate of respiration and transpirations; ripening of fruits, Quality attributes of fruits.

Fruit Handling and Storage — 15 Marks

- Harvesting techniques of fruits, criteria for harvest maturity of fruits, principle and techniques of pre-cooling, advantages of scientific grading; grade standards for apple, advantages of fruit packing; use of various packing materials; principles of refrigerated and controlled atmosphere storage of fruits, transportation of fruits and its problems; Marketing channels of apples.

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Annexure "4"

Sub: Syllabus for written test (Objective Type) for the Posts of Jr Librarian / Library Assistant

Marks:150
Time:-2.30 hours

Unit-I **Marks 25**

- Types of Libraries and their Features
- Role of Libraries in contemporary Society
- Five Laws of Library Sciences
- Library legislation in different states of India
- Intellectual Property Rights(IPR)
- National and International Library Associations: ILA,IASLIC, IATLIS, SIS IFLA, FID ALA, ASLIB SLA etc.
- National and intercalation Agencies : UNESCO, OCLC, PRRLF, UGC,
- INFLIBNET, DELNET ,etc
- Information Centres, DRTC, ISI, INSDOC(NISCAIR),NASSDOC, DESIDOC, SENDOC, etc

Unit-II **Marks 25**

- Basic Terminology: call Number, Class Number, Book Number, Isolates
- Classification; concept, purpose and species
- Features of DDC, UDC, and CC
- Five Fundamental Categories
- Notation: Definition and Purpose
- Library Catalogue; Definition and purpose
- OPAC AND WebOPAC
- Cannons of Classification and Cataloguing

Unit-II **Marks 25**

- Principles of Book Selection
- Selection Tool; Print and Non-Print Materials
- Processing of Documents; Accessioning, Classification, Cataloguing labeling and shelving
- Serials/ Journals; Selection and procurement

- Book Transaction System: Traditional and Modern
- Stock verification of Books; Methods and Tools
- Weeding Process

Unit-IV **Marks 25**

- Information Sources: Print and No- Print ; Primary, Secondary and Tertiary Sources
- Types of Dictionaries, Encyclopedias
- Geographical and Biographical Sources
- Indexing and Abstracting Sources
- Types of Bibliographies
- Bibliographies Sources

Unit-V **Marks 25**

- Types of Reference service ,Ready reference service, Long Rang Reference Service
- Reference Librarian: Role Skills and Competences
- User Education/ Information Literacy Skills
- CAS/SDI
- International Information System; INIS,AGRIS,MEDLARS/MEDLINE,INSPEC
- Information Seeking Pattern

Unit-VI **Marks 25**

- Computer Genesis
- Computer Generations
- Primary and Secondary Memory; Storage Devices
- Operating System: MS DOS, Windows, Linux
- Programming; Algorithm, Flowcharts, Languages
- MS-WORD , MS-Excel –Ms-Power point, DBMS,CDS/ISIS, WINISIS

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Annexure "5"

Sub: Syllabus for written test (Objective Type) for the posts of JUNIOR PHARMACIST

Marks :-150
Time :- 2.30 Hours

First Aid and Emergency Health Services 10 Marks

- Outline of the First-Aid
- Structure and functions of the body
- Dressing and Bandages (use of Triangular Bandages and Cotton Roller Bandage, Rubber Bandage and Different types of Dressing).
- Cardio-pulmonary Resusciration. Wounds.
- Haeomorrhage
- Shock
- Electric Stock
- Different methods of artificial respiration.
- Asphyxia.
- Fractures and Dislocation.
- Unconsciousness and Fainting
- Epilepsy and Hysteria.
- Poisons including food poisoning.
- Common Conditions:
    - Foreign body in ear, eye and nose
    - Cramps
    - Frost-Bite
    - Bites and Stings etc.
    - Epistaxis
    - Snake Bite
    - Dog Bite
- Transport of injured persons
- Use of common medicines

STERILIZATION/DISINFECTION 10 Marks

Physical, Chemical and Mechanical Methods etc. Disposal of contaminated Media, sterilization of syringes, glass wares, apparatus etc. Biomedical waste management.

SURGICAL INSTRUMENTS, THEIR NAMES & USES, PREPARATION OF PATIENT FOR OPERATION, PRE & POST OPERATIVE PATIENT CARE

SURGICAL INSTRUMENTS (Their Names & Uses) (Their Preparation & Uses)

SURGICAL INSTRUMENTS: 05 Marks

- Instruments for general surgery
- Operation of the face and neck
- Operations of the Nose, Throat and Ear
- Ophthalmic Surgery
- Operations on the Chest
- Operations on the Genito-Urinary Tract
- Gynecological and Obstetric
- Operations Orthopaedic Operations
- Neuro-Surgical Operations
- Operations on the Vascular System
- Trauma Surgery

PREPARATION OF INSTRUMENTS TRAY: 05 Marks

- Major procedures tray
- Basic/Minor procedures tray
- Limited procedures tray
- Thyroid tray
- Long instruments tray
- Biliary Tract Procedures tray
- Choledochoscopy tray
- Basic rigid Sigmoidoscopy tray
- Gastrointestinal procedures tray
- Rectal procedures tray

GYNECOLOGIC AND OBSTETRIC TRAYS: 05 Marks

- Dilatation of the Cervix and Curettagge of the Uterus (D&C) tray.
- Cervical Cone tray
- Laparoscopy tray
- Abdominal Hystrectomy tray
- Caesarian section tray
- Vaginal Hysterectomy tray

GENITOURINARY TRAYS: 05 Marks

- Vasectomy tray
- Open Prostatectomy tray
- Kidney tray

THORACIC TRAYS — 02 Marks

- Mediastinoscopy tray
- Thoractomy tray
- Pcemaker tray

CARDIOVASCULAR TRAYS: — 02 Marks

- Vascular procedures tray
- Vascular Shunt tray
- Cardiac Procedures tray

ORTHOPAEDIC TRAYS: — 05 Marks

- Basic Orthopaedic procedures tray
- Minor Orthopaedic procedures tray
- Hip replacement tray
- Knee or Ankle Anthroscopy tray

NEUROLOGIC PROCEDURES TRAY — 02 Marks

- Craniotomy tray
- Laminectomy tray

OTORHINOLARNGOLOGIC (ENT TRAYS): — 02 Marks

- Basic Ear procedures tray
- Nasal Procedures tray
- Myringotomy tray
- Tonsillectomy and Adenoidectomy tray
- Tracheostomy tray
- Antral Puncture tray

OPTHALMIC TRAYS: — 05 Marks

- Basic Eye procedures tray
- Eyelid and Conjuntional procedures tray
- Basic Eye Muscle procedures tray
- Dacryocystrohinostomy tray
- Corneal Procedures tray
- Cataract Extraction and Lens procedures tray
- Glaucoma procedure tray
- Basic Eye procedures Microscope tray
- Retinal procedures tray

PEDIATRIC TRAYS: **05 Marks**

- Pediatric major procedures trays
- Pediatric minor procedures trays
- Pediatric Gastrointestinal procedures trays

PREPARATION OF PATIENT FOR OPERATION, PRE & POST OPERATIVE PATIENT CARE

15 Marks

PRE-OPERATIVE CONSIDERATIONS:

- Psychological support of the surgical patient. **05 Marks**

PROTECTION OF THE PATIENT IN SURGERY: **08 Marks**

- Admission Procedure
- Transfer Procedure Position
- Environmental Controls
- Electro Surgery
- Operative Recores
- Counting Procedure
- Sterilization
- Emergencies and Disasters

SAFETY FOR MEDICAL ASSISTANT, PHARMACIST IN A OPERATION THEATRE: **04 Marks**

- In service education
- Body Mechanic
- Fatigue factors
- Radiation Safety
- Infection control
- Chemical hazards.

Anatomy and Physiology

Course Content

Unit-I Introduction to terms used **Marks 25**

Unit-II Organization of body

- Cell: Types, Structures and Functions
- Tissues: Types, Structures and Functions
- Glands: Types & Functions
- Membranes: Types & Functions
- Organs & Systems

Unit:- III Skeletal systems

- Bones: types, structure, functions

- Axial Skeleton
- Appendicular skeleton
- Joints:- Definition structure and functions

Unit-IV Muscular system

- Position and action of chief muscles of the body.

Unit-V Cardio-Vascular Systems

- Heart: Position, Structure differences, name and position of chief blood and lymph vessel and function
- Circulation of Blood: systemic pulmonary and portal circulation coronary circulation
- Cardio-Vascular System
- Heart: position, structure, conduction system, functions and cardiac cycle.
- Blood vessel:- types, Structural differences, name and position of chief blood and lymph vessel and functions
- Circulation of Blood: Systemic Pulmonary and portal circulation coronary circulation
- Blood composition and functions, blood groups and RH factor
  Blood Pressure and Pulse

Unit-VI Lymphatic system

Lymph vessels, glands ducts and lymph circulation, lymph tissues in the body , Spleen and reticulo-endothelial system

Unit-VII Respiratory system

- Structure and functions of respiratory organs
- Physiology of respiration

Characteristics of normal respiration and its deviations

Unit-VII Digestive system

Structure and function of organs of digestion

Unit-VII Process of digestion and absorption

Metabolism: meaning and metabolism of food constituents.

Unit-IX Excretory Systems

Organs of Excretion such as –Lungs colon, Kidney and skin
Structure and function o organs of urinary systems
Structure and functions of the Skin
Fluid and electrolyte balance

Unit-IX Nervous system

- Types, structure and functions of neuron.

- Central Nervous system; Structure and functions
- Autonomic Nervous system: Structure and functions

Unit-X Endocrine system

Structure and functions of pituitary, pancreas, thyroids-parathyroid, thymus and supra rental glands.

Unit-XII Sense Organs

Structure and function of eyes, ear, nose and tongue.

Physiology of vision, hearing and equilibrium

Unit-XIII Reproductive system

- Structure and functions of female reproductive and accessory organs Process of reproduction, menarche, menstrual cycle and menopause
- Reproductive health
- Structure and function of male reproductive organs.

Applied physics and chemistry

Unit-I Unit and Measurement

- Introduction
- Units of length
- Unit of Mass
- Unit of Equivalents
- Principles of Physics

Unit-II Mater

- States of matter
- General properties of solids
- General properties of liquids
- Practical Application

Unit-III Mechanics

- Centre of Gravity
- Archimedes principle
- Traction
- Friction
- Levers and pulleys

Unit-IV Pressure

- Introduction
- Concept of pressure
- Hydrostatic pressure

- AtmosOphereic pressure
- Barometer
- Siphon
- Effects of changes in atmospheric
- Pressure on Human Body
- Practical Application

Unit-V Heat

- Production of Heat
- Measurement of Temperature
- Clinical Thermometer
- Transmission of
- Heat Application of
- Heat Sterilization

Unit-VI Ionizing and Radiation

- Radioactivity
- Radioisotopes
- Clinical Uses of Radioisotopes and
- Radio Elements
- Radiation Hazards

Chemistry

Unit I Oxygen
Unit II Water
Unit III Soluti9ons
Unit VI Ionization
Unit VI Acids and Bases
Unit VI Salt
Unit VII Metals and Non –Metals

Nutrition

Marks 10

Unit Introduction

- Changing concepts-foods habits and customs
- Relationship of nutrition to health

Unit II Food

- Constituents
- Normal Requirements Sources
- Deficiencies

- Balance Diet

Unit III Normal dietary requirements and deficiency diseases of each of the constituents of food

- Factors affecting selection and planning of meals
- Method of calculating normal food requirements
- Low cost menu

Unit **VI** **Community Nutrition** Marks 20

- Concept of community nutrition
- Nutritional needs for special groups i.e., infants, children, pregnant women, lactation mothers, old people etc.
- Nutrition education: needs and methods
- Substitute for non-vegetarian food
- Methods of improving an ill-balanced diet
- Community nutrition programme
- Food hygiene an law related to food.
- Sterilization/Disinfection/Bio-Medical Waste/ sepsis, Asepsis
- Natural, Physical, Chemical and Mechanical method etc
- Community Health

. **Public Health and Hygiene**

- Modern concept of public heath
- Comprehensive Health care
- Five year plans, priorities allocation of medical and health services
- Health and family planning organizations set up at the nation the sate, the District and Block levels
- Functions of primary Health Centre , CHC Distt. Hospital Ads and Sub centers.

Unit-II Epidemiological Methods Approaches and investigations

Unit-III Health Education

- Heath Education(Information, Education and Communication)
- Principles Ethics, Attributes of Health Educator
- Various Methods of Health Education

Unit-IV National Health Programme

- National Malarial Eradication programme
- National leprosy Eradication programme
- National tuberculosis control programmme
- National Aids control programmme
- National programmme for control of Blindness

- National iodine Deficiency Disorders programmme
- National Universal Immunization Prograammme
- National Family Welfare prograamme
- National Ginea-Worm Eradication prograamme
- National Cancer Control Programme
- National filarial Control Programme
- National Water Supply and Sanitation Programme

Unit V Records Keeping and vital statistics

Unit –VI Minor Ailments

- Classification,, early detection and management
- Standing instructions/orders

Unit –VI Environmental Hygiene

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Annexure "6"

Sub: Syllabus for written test (Objective Type) for the posts of 10+2 level

Time: 02.30 Hrs.
Marks: 150

Unit-I GENERAL ENGLISH **20 Marks**

(i) Paragraph writing / Comprehension
(ii) Editing / Proof Reading.
(iii) Rearranging of jumbled sentences
(iv) Dialogue
(v) Narration
(vi) Models
(vii) Articles
(viii) Paragraph writing with blanks to be filled in with the following Phrases, Pronouns, Homonyms / homophones, Tenses.
(ix) Clauses
(x) Punctuation
(xi) Synonyms and antonyms
(xii) Pairs of words and their use in meaningful sentences.
(xiii) Idioms and phrases.
(xiv) Uses of Prepositions

Unit-II MATHEMATICS **20 Marks**

(i) Problems on finding Surface areas and volumes of combinations of any two of the following cubes, cubiods, spheres, hemispheres and right circular cylinders / cones. Frustum of a cone.
(ii) Problems involving converting one type of metalic solid into another and other mixed problems.
(iii) Profit and loss
(iv) Simple / Compound interest.
(v) Linear equations with two variables.
(vi) Progression / BODMAS
(vii) Probability: Simple problems on Single event.

Unit-III HISTORY **15 Marks**

(i) Revolt of 1857 - Causes and Effects.
(ii) Rise of National Movement - Factors.
(iii) Formation of the Indian National Congress in 1885 and Role of Moderates.
(iv) Factors leading to the rise of Exremism in the Congress with special reference to the Partition of Bengal.
(v) Important dates and historical events with reference to India
(vi) Boycott and Swadeshi Movement.
(vii) Rise of Muslim League in 1906 : Cause.
(viii) Khilafat Movement and the Non-Cooperation Movement.
(ix) Quit India Movement.
(x) Independence and Partition of India.

Unit-IV CIVICS **15 Marks**

(i) Fundamental Rights
(ii) Fundamental duties.
(iii) Directive Principles.
(iv) Origin of democracy and its types. Direct and Indirect Democracy, Hindrance to Democracy.
(v) Public opinion.
(vi) Representaion.
(vii) Franchise.
(viii) Secret Ballot.
(ix) Nomination.
(x) Symbol.
(xi) The Campaign
(xii) Presidential elections.
(xiii) Languages
(xiv) Cities and Villages.
(xv) The United Nations.

Unit-V GEOGRAPHY 15 Marks

(i) Change of Seasons/ Planets/ Solar System/ Longitude - Latitude. Types of forests (with special reference of J&K State)
(ii) Conservation and protection of forests.
(iii) National / Zoological Parks and wildlife sanctuaries (Reference of J&K Sanctuaries and National Parks).
(iv) Water resources. Sources of Water (with special reference of J&K State), Uses of water Resources. Conservation and management of water resources.
(v) Rainwater Harvesting.
(vi) Transport.
(vii) Roads (Different routes of J&K State)

Unit-VI GENERAL SCIENCE 20 Marks

(i) Gravitation / Heat / Light / Matter / Acids / Salts / Elements / Cells.
(ii) Various sources of energy; conventional sources of energy; improvement in technology for using conventional source of energy (Biomass and wind energy)
(iii) Non-conventional sources of energy (Solar energy, Energy from sea).
(iv) Physical properties of metals and non-metals.
(v) Chemical properties of metals like action of water, air, acids, salts; Reactivity series of metals.
(vi) Occurance of metals; their extraction, enrichment of ores. Extraction of metals in accordance with activity series; refining of metals.
(vii) Life processes: Nutrition and its types, Respiration, Transportation of water, food and minerals in plants, Excretion with reference to plants and animals.
(viii) Environmental pollution.
(ix) Ecosystem – Its components, Food chains and Food webs.
(x) Ozone layer, its depletion, Green House Effect.
(xi) Mendal's contribution and experiments on pea plant.
(xii) Types of reproduction in Plants and Animals.
(xiii) Classification of Plants and Animals.

Unit-VII (A) GENERAL KNOWLEDGE AND CURRENT AFFAIRS 15 Marks

Abbreviations, Important Dates, Popular Personalities, Geographical Discoveries, Books and Authors, Principal Languages of India, Capitals and Currencies of Countries, United Nations Organisation, Members of United Nations Organisation (UNO), Other International Organisations and Groups, Members of SSARC, ASEAN, BRICS AND G-7, Space Programme of India, India's Automic Research Programme, Awards, Honours and Prizes, Seven Wonders. The World of Sports, Exports and Imports, India GDP, Per capita Income, Thermal / Nuclear/ Hydro Power Plants in India.

(B) GENERAL KNOWLEDGE WITH SPECIAL REFERENCE TO J&K 15 Marks

(i) Important dates, Popular names of personalities and their achievements / contribution.
(ii) Constitution of J&K with reference to constituent Assembly.
(iii) Centre-State relationship.
(iv) Weather, Climate, Crops, Means of Transport.

(v) Important projects and their impact on State Economy.
(vi) Rivers and Lakes.
(vii) Important Tourist Destinations.
(viii) History of J&K State.
(ix) Historical places and their importance.
(x) Flora and Fauna of J&K State.

Unit-VIII MENTAL ABILITY TEST 15 Marks

(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.

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Annexure "7"

Sub: Syllabus for written test (Objective Type) for the posts of Jr. THEATRE TECHNICIAN , Jr.THEATRE ASSISTANT, THEATRE ASSISTANT-II and THEATRE ASSISTANT

Max time:-150
Time:-2.30 Hours

1. Pre-operative Consideration: 05 Marks

Psychological support of the surgical patient.

2. Protection of the patient in surgery: 25 Marks

- -Admission Procedure
- -Transfer Procedure Position
- -Environmental Controls
- -Electro-Surgery
- -Operative Records
- -Counting Procedure
- -Sterilization
- -Emergencies and Disasters.

3. Surgical Instruments: 15 Marks

- Instruments for general surgery
- Operation of the face and neck
- Operations of the Nose, Throat and : Accessory Nasal Sinuses
- Ophthalmic surgery
- Sinuses, Ear & throat
- Operations of the Chest, Operations on the Genito-Urinary

Tract

- Gynecological and Obstetric Operations

- Orthopedic Operations
- Neuro-surgical Operations
- Radium Insertion
- Traumatic Surgery.

4. Surgical Procedures: 05 Marks

Neck Surgery:

- Thyroidectomy
- Parathyroidectomy
- Thyroglossal Cystectomy

Preast Procedures :

- Beast Biopsy
- Mastectomy

Abdominal Extraintestinal Surgery:-

- Abdominal laprotomy
- Abdominal Hernlography
- Cholecystectomy
- Drainage of Pancreatic Cyst (Pseudocyst)
- Pancreaticoduodectomy (Whipples procedure)
- Pancreatectomy
- Dranage of Abscess (es) in the region of liver
- Hepatic Resection
- Spleenectomy.

· **Gastriubtestinal Surgery**

- Esopghagoscopy
- Gastroscopy
- Colonoscopy
- Sigmoidoscopy
- Vagotomy and Pyloroplasty
- Gastrostomy
- Gastrectomy
- Small Bowel Resection
- Cutaneous illeostomy
- Appendectomy
- Colostomy
- Closure of colostomy

- Right Hemincolectomy
- Transverse Coplectomy
- Anterlor Resection of the Sigmold Colon and Rectum
- Haemorrhoidectomy
- Pilonidal Cystectomy and Sinusectomy
- Theirsch Procedure
- Ripstein Procedure (Prosacral Rectopexy)

5) Gynaecologic and Obstetric Surgery 05 Marks

- Dilatation of the Cervix and Curettage of the Uterus (D&C)
- Conization of the Uterine Cervix
- Therapeutic Abortion by suction Currettage
- Marsupialization of Bartholin's Duct Cyst
- Abdominal Ligabion (Different Procedures)
- Culdoscopy
- Anterior and /or Posterior Colporraphy
- Laparoscopy
- Total Abdominal Hysterectomy
- Slpingo-Oophorectomy
- Tuboplasty of the Fallopian Tubes
- Pelvic Exenteration
- Caesarian Section.

. **Genitourinary Surgery:**

- Hypospadias repair
- Epispadias repair
- Penile Implant
- Marshall-Marchetti-Krantz Procedure
- Hydrocolectomy
- Vasectomy
- Vasovasostomy
- Cutaneous Vasostomy
- Spermatocolectomy
- Orchectomy
- Gystoscopy
- Cystosdopy
- Transurethral Resetion of the Prostate
- (TURP) and /or Lesions of the Bladder or Bladder Nech (TURB)
- Open Prostatectomy
- Nephrectomy
- Upper Tract Urolithotomy(Ureterolithotomy, Pheloothotomy, Nephrolithotomy) cutaneous vresterstomy
- Llegal conduit
- Extracproeal shock wave Lithotrpsy (ESWL)
- Ultrasonic Lithortripsy

- Electrohydraulic Lithotripsy

6) **Thoracic Procedures:** **05 Marks**

- Bronchosopy
- Mediastioscopy
- Segmental Resection of the Lung
- Wedge Resection of the Lung
- Pulmonarty Lobectomy Pneumonectomy
- Decortication of the Lung
- Insertion of Transvenous Endocardial Pacemaker
- Correction of Pectus
- Excavatum
- Thymectomy

. **Cardiovasular Surgery:-**

- Carotid Endarterectomy
- Abdominal Aortic Procedures(Abdominal Aortic Abneurysmectomy,
- Abdominal Aortic Endaertectomy) with Astroilliac Graft
- Femoropopliteal Bypass
- Greater Saphenous vein Ligation and Stripping
- Portasystemic Shunt
- Artheriovenous Shunt
- Arteriovenous Fistula
- Cardiac procedures
- BY pass Surgery(Different Procedures)

. **Orthopaedic Surgery:**

- Open reduction of a carpal Bone Fracture
- Excision of a Gaglion
- Carpal tunnel Release
- Open rduction of the Humerus
- Open reduction of the Radius and /or Ulna
- Open reduction of an Olecranon process Fracture
- Repair of recurrent Anterior Dislocationm of the Shoulder
- Open reduction of Fracture of the Humeral Head (including Humeral Head Prosthesis)
- Internal Fixation of the Hip
- Femoral head Prosthethic Replacement
- Total Hip replacement
- Openreduction of the femoral Shaft
- Triple Arthrodesis of the Ankle
- Total Ankle joint Replacement
- Open reduction of ankle
- Arthrotomy of the Knee
- Excision of Popliteal(Baker's Cyst)
- Total knee replacement
- Open reduction of the Tibial shaft
- Bunionectomy
- Correction of hammer toe Defrmity with interphalabngeal Fusion

- Metarsal Head Resection
- Procedure for correction of scoliosis
- Amputatiohn of lower Extremity

7) **Neurological Surgery :** **05 Marks**

- Craniotomy
- Cranioplasty
- Transphenoidal Hypophysectomy
- Ventricular Shunts
- Laminectomy
- Excision of a Cervical Intervetebral Disc with fusion, AntoriorApproach.

. Plastic Surgery :

- Cleft Lip repair
- Cleft Palate repair
- Reduction of Nasal Fracture
- Reduction of Mandibular Fracture
- Reduction of a Zygomatic Fracture
- Open reduction of an Orbital Floor Fracture
- Rhinoplasty
- Mentoplasty Augmentation
- Blepgharoplasty
- Rhytidectomy
- Dermabrasion
- Otoplasty
- Repair of Syndactyly
- Digital Flexor Tendon repair
  Peripheral Nerve repair
- Palmar Fascoectomy
- Reduction Mammoplasty
- Abdominoplasty /Abdominal Liposuction
- Liposuction

8) **Otorhinolarynogologic (ENT) Surgery:** **05 Marks**

- Myringotomy
- Mastoidectomy
- Tympanoplasty
- Stapedectomy
- Submucous Resection of the Nasal Septum(SMR) / Septoplasty
- Intranasal Antrosstomy / Intranasal Fenestration of the Nasoantal Wall.
- Caldwell-Luo procedure(Radial Drainage of the antrum of the Maxillary Sinuses)
- Nasal Polypectomy
- Drainage of the Frontal Sinus

- Tonsillectomy and Adenoidectomy (T and A) Laryngoscopy
- Traheostomy
- Excision of the Submaxillary (Submandibular Gland)
- Parotidectomy
- Laryngectomy
- Radial Neck Dissection
- Excision of lesions of the oral cavity
- (Partial Glossectomy with Margyinal Rsection of the Mandible)

.**Opthalmic Surgery :**

- General Information
- Excision of a Chalazion Canthotomy
- Corection of Ectroplon
- Blepharoptosis repair
- Lacrimal Duct Probing
- Dacryocystothinostomy
- Correction of Strabismus
- Esyiscertation of the Globe
- Orbital Exenteration
- Corneal Transplant /Ekeratoplasty
- Cataract Extraction
- Iridectomy
- Trabeculectomy
- Excision of a pterygium
- Repair of Retinal Detachment /Scieral Bucking
- Vitrectomty
- Refractive keratoplasty

9) Pediatric Procedures:- 02 Marks

- Pediatric General Information
- Pediatric Tracheostomy
- Branchial sinusectomy
- Reparir of Congenital Diaphragmatic Hernia
- Omphalocele Repair
- Pediatric Umblical Herniography
- Reparir of congenital Atresia of the Esophagus
- Insertion of a central Venous Catheter(Paediatric)
- Pyloromyotomy for congenital Hypertrophic Pyloric Stenosis
- Pediatric Gastrostomy
- Reduction of pediatric intususception
- Pediatric Colostomy
- Pediatric Colorctal Resection for Aganglionic Megacalon/Hirschsprung's Disease
- Repair of Imperforate Anus

10. Anaesthesia : 13 Marks

- General Information
- General Anaesthesia
- Conduction

1. Generalanaesthesia: Conduction anaesthesia:

- Spinal
- Epidural
- Caudal
- Regional
- Local
- Topical

11 Methods for preparation of the Patients for Anaesthesia : 05 Marks

- Methods and Proedures (during after operation)

12 Surgical Procedures and Monotioring:Safety for operation Room Personnel : 25arks

- In Service education
- Body mechanic
- Fatigue Factors
- Radiation Safety
- Infection control
- Chemical Hazzards

13 Preparation of Instruments Tray:- 20 Marks

- Major procedures tray
- Basic /Minor procedures tray
- Limited procedures tray
- Thyroid tray
- Long instruments tray
- Biliary tract procedures tray
- Choledochoscopy tray
- Basic rigid sigmoidoscopy tray
- Gastrointestinal procedures tray

- Rectal procedures tray

14 Gynecologic and obstetric Trays: 05 Marks

- Dilatation of the Cervix and Curettagge of the Uterus (D&C) Tray
- Cervical Cone Tray
  Laparoscopy
- Abdominal Hystrectomy
  Caesarian Section tray
- Vaginal Hysterectomy tray

. Genitourinary Trays:

- Vasectomy tray
- Open Prostatectomy
- Kidney tray

15 Thoracic Trays: 05 Marks

- Mediastinoscopy tray
- Thoractomy Tray
- Pacemaker tray

. Cardiovascular Trays:-

- Vascular Procedures tray
- Vascular Shunt Tray
- Cardiac procedures tray

Orthopadeic Trays:

- Basic orthopaedi procedures tray
- Minor orthopaedic procedures tray
- Bone holding instruments tray
- Hip retractor tray
- Knee Arthtotomy tray
- Knee or Ankle Anthroscopy tray

16 Neurologic Procedures Tray: 05 Marks

- Craniotomy tray
- Laminectomy Tray
- Kerrison Rongeurs and Pituitary Coreps tray
- **Otorhinolaryngologic(ENT) Tray:**
- Basic Ear procedures tray
- Nasal procedures tray
- Myringotomy tray
- Tonsiliectomy and Adenoidectomy tray
- Tracheostomy tray
- Antral Puncture tray

- ***Opthalmic Trays:***
- Basic Eye procedures tray
- Eyelid and Conjunctional procedures tray
- Basic Eye Muscle procedures tray
- Cataract Extractionand Lense procedures tray
- Glaucoma Procedures tray
- Basic Eye procedures Microscope tray
- Retinal procedures tray
- **Pediatric Tray :**
- Pediatric major procedures tray
- Pediatric minor Procedures tray
- Pediatric Gastrointestinal Procedures trays.

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Annexure "8"

Sub: Syllabus for written test (Objective Type) for the posts of X-RAY ASSISTANT, JUNIOR X-RAY TECHNICIAN

Max time:-150
Time:-2.30 Hours

1)ANOTMY AND PHYSIOLOGY **20 Marks**

GENERAL:

Introduction to the Human body. Terms used in Anatomy, (Surface anatomy, markings and locations of different body parts and important body planes.

Planes and Regions of Thoracic, Abdominal and pelvic Cavities.

Cardiovascular System.

Heart, pericardium, Arterial system, Venous system, Capilary, systemic circulation.

Digestive System:

Mouth , oesophagus, stomach, small intestine, large intestine, spleen, liver, Salivary Gland , Gall Bladder, pancreas, Physiology and Digestion Absorption and Assimilation of Food.

Respiratory System:

Noise , pharynx, larynx, trachea, Bronchi, lungs, pleura, physiology of Respiration-Expiration and Ins;piration, Internal and External

Respiration, Breathing control, vital capacity . Tidal volume and Dead space.

Reproductive system:

a) Male Reproductive system: Male Reprodutive organs, Spermatogenesis, Testosterone and Secondary sexual characters.

Female Reproductive System: Vulva, internal reproductive organs menstrual cycle, ovarian hormones & Female breast.

Excretory System:

Introduction to Excretory body organs, structure of kidneys , ureters, Urinary, Bladder, Urethra, Physiology of filteration Reabsorption and secretion.

Nervous System:

Brain Meninges , ventricles spinal cord nerves and cerobro spinal fluids.

Endocrine system –

Definition, Pituitary Gland, Pineal gland.Thymus Gland Adreneal Glands Thyroid, Parathyroid Glands.

Sense Organs-

Structure and function of Eye , Skin , Ear and Tongue.

Musculoskeletal System-

Skull, vertebral column, shoulder girdle, Thoracic cage. Bones upper limbs , Bones of lower limbs, type of bony joints and movements.

2)Transformers- 20 Marks

Principles construction of step up & down and Auto transformers, construction of high tension .Transformers rectification . Self rectification.

X-Ray

Production of x-ray, properties, interaction with matter (Photo electric comption effect and pair production) luminescent effect, photographc effect, ionizing effect & biological effects.

Units and Measurements of X-Rays-

Lonixation, Roentigen, Rad Rem, R.B.E. Radiaton badges, lionization chambers.

x-Ray Tube-

Construction of x-ray tube Targets, cooling and insulation , x-ray circuits, timers and rectifiers in x-ray, circuits, inter locking circuits, stationary and Ratatory anode tube.

Quantity and Quality x-ray , H.V.T or VVL linear absorption co-efficient grids, cones cylinders, filters, focal spot size LBD FFD or LSD and OFD Fluoroscopy and Image intensifier

3)Radiographic photography Techniques- 30 Marks
(Dark room Techniques)

Dark Room-

Definition and location of dark room, ideal design of dark room , light and radiation protection devices , safe light test, ventilation, dry and wet benches, Duplicator.

Radiographic Films-

Ortho-chromatic films , panchromatic films, Base, Bonding layer, emulsion and super coating of films. Non screen films CTA base and polyster base films. The structure of Double coated & single coated film.

X-Ray Cassettes-

Construction of various cassettes, cassettes care, mounting of intensifying screen in cassettes.

Intensifying screens-

Luminescence (Phosphores cence and fluorescence) construction of screens. Type of phosphors and pigments film screen contact, speed of

screens-slow parfast care of intensifying screens . Intensification factors numeral proof and rare earth screens.

a) Mounting of intensifying screens.

b) Screen film contact.

Film Processing-

Auto processing material for processing equipment and annual processing control on temperature chemical in Dark room the PH Scale.

X-ray Developer
X-Ray Fixer
Film Rinsisng Washing & Drying
Preparation of processing chemicals, loading and unloading of cassettes,

Presentation of Radiograph-

record filling and report distribution.

Film Artifacts-

Definition, type an causes of radiation and photographic artifacts, factors affecting the quality control of radiograph.

4)Radiograpghic General Procedures **30 Marks**

Intorduction- The Radiographic image (image formation, magnification image Distortion, Image, sharpness, Image contrast) Ex posure factor and Anatomical Terminology.

Skeletal System-

Upper Limb- Procedure for thumb, fingers, meta carpals, hand corpometacarpel joints, wrist joint, carpo-radio-ulpar joint, forearm, elbow joint, arm, special views for scaphoid bone, olecranon process , supra condylar prljection in various type ofinjured patients.

b) Lower limb- Procedure for toes, meta tarsalls, complete foot, trasoancaneal, talo calcaneal joint, lege with ankle joint legewith knee jointm knee joint, thigh with hip joint.

c) Shoulder Girdle and Bony thorax- Procedures for scapula calvicle and head of humerus sternoclavicular joint , special views

for clavicle. Head of humerus and scapula in various types of injured or dislocation cases.

d) Vertebral Column- Normal curvature relative levels of vertebrae, procedures for atlanto-occipital joint, odontoid process, cervical spine , cervicodorsal spine , dorsalsspine, dorso-lumbar spine, and spondolysis.

Chest-

Procedures for chest at six feet, lying down and crect positions, inspiration and expiration views , special views like lordotic , decubitus, MMR portable teleradiography, chest in pregnancy. High Kilovolatage technique.

Abdominal Pelvis-

Preparation for procedure, procedure for upper abdomen, lower abdomen,KUB Gallbladder Stomach , small intestina and large intestine in supine and erect position, special views in case of perforation etc.

Sinus-

Procedures for paranasal sinuse, (frontal, ethmoid, sphenoid and maxillary sinuses).

Soft Tissue Radiography-

Procedures for STM , STN abdomen and other body organs.

invetogram procedures, manipulation of positions, immobilization , exposure, FFD in abnormal conditions of patients.

Hospital Practice and Care of patients-

Set up of radiology department in Hospital, Hospital staffing and organization . Patients registration , record filling , cases put up and dispactch devices, medico legal aspect of profession . Professional relationship of radiographer with patient and organization staff.

5)Special Investigation **20 Marks**

Urinary Tract-

Plain Radiographs for UB Intravenous pyelegraph, (IVP or IVU)Retrogratepyelegraphy , Micturting –cystourethrogram , Retrograte Urethrogram

Gastro-Intestinal Tract-

Plain Radiographs, abdomen, Barium Swallow, Bameal UGI Ba meal ET, Ba Enema, double contract Ba enema and instant Ba enema, Miscellaneous Procedures, Gastrograffm study, fluoroscopy,

Biliary Tract-

Introduction to biliary contrast media plain radiographs upper abdomen, oral choleystography (OCG) endoscopic Rtrograte choloctysto pancreatograpy (ERCP)

HSG

Fistulogram

Sinogram

6)Basic principle and application of computerized tomography, ultrasound Magnetic resonance Imaging, Computer Radiography and Digital Radiography
20 Marks

7)Contrast Agents, Contrast Reaction and their management, Emergency Drugs used in Radiology Department **10 Marks**

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ANNEXURE "9"

Syllabus for the posts of Jr. Anesthesia Assistant / Anesthesia Assistant

1. **GENERAL PRINCIPLES OF ANESTHESIA** (10 MARKS)
   a) PRE-MEDICATION;
   b) INDUCTION;
   c) MAINTENANCE.
   d) RECOVERY & POST-OPERATIVE.
2. **ANESTHESIA MACHINE / WORK-STATION**:- (10 MARKS)
   a) BASICS;
   b) CHECK-LIST;
   c) MAINTENANCE.
3. **ANESTHESIA BREATHING CIRCUITS & SODA-LIME**:- (05 MARKS)
   a) IDENTIFICATION;
   b) ASSEMBLY;
   c) CONNECTIONS;
   d) CLEANING & DIS-INFECTION;
   e) CHECKS.
4. **MEDICAL GASES – CYLINDERS & PIPE-LINE**:- (05 MARKS)
   a) CHECKS;
   b) MAINTENANCE.
5. **ANESTHESIA EQUIPMENT TROLLEY INCLUDING DIFFICULT AITYWAY CART:-** (10 MARKS)
   a) IDENTIFICATION;
   b) USAGE;
   c) MAINTENANCE;
   d) DISINFECTION & STERILIZATION.
   (LARYNGOSCOPES & THEIR BLADES, ENDOTRACHEAL TUBES {PVC & RED-RUBBER} , AIRWAYS, LARYNGEAL MASK AIRWAYS, BOUGIE'S , MAGILL'S

FORCEPS, FACEMASKS { HUDSON'S, ANATOMICAL, VENTURI ETC.}, STYLETS, RYLE'S TUBE).

6. **CARE OF EQUIPMENT**:- (05 MARKS)
   a) CLEANING;
   b) STERILIZATION & DIS-INFECTION;

7. **DISPOSAL OF WASTE; INFECTION PREVENTION & CONTROL METHODS** (05 MARKS)
8. **THEATRE DISCIPLINE**. (05 MARKS)
9. **MONITORS IN ANESTHESIA**:- (10 MARKS)
   a) E.C.G – BASICS, LEADS & ELECTRODES;
   b) BLOOD-PRESSURE MONITORING (INVASIVE & NON-INVASIVE);
   c) PULSE OXIMETER;
   d) $EtCO_2$;
   e) CENTRAL VENOUR PRESSURE MONITORING;

10. **BASIC KNOWLEDGE, CARE & HANDLING OF VENTILATORS & ITS ACCESSORIES**. (05 MARKS)
11. **SUCTION EQUIPMENT & CATHETERS**:- (05 MARKS)
    a) BASICS;
    b) MAINTENANCE;
    c) DIS-INFECTION.

01. **DRUGS**:- USED FOR INDUCTION OF ANESTHESIA, MAINTENANCE OF ANESTHESIA, RECOVERY FROM ANESTHESIA, MAINTENANCE OF BLOOD-PRESSURE (INOTROPES & HYPOTENSIVE AGENTS), MAINTENANCE OF CARDIAC FUNCTION; ANTI-EMETICS, ANALGESICS (PARACETAMOL, NSAIDS, OPIOIDS ETC.), BRONCHODIALATORS, DIURETICS, UTEROTONICS, ANTIBIOTICS, STEROIDS, LOCAL ANESTHETICS, MUSCLE RELAXANTS); (10 MARKS)
    a) BASICS;
    b) USES;
    c) DOSAGE;
    d) ADVERSE- EFFECTS;
    e) CONTRA-INDICATIONS;
    f) DILUTION;
    g) STORAGE;
    h) PRECAUTIONS;
    i) MAINTENANCE.
02. **FLUIDS & TRANSFUSION**:- (10 MARKS)
    a) I.V CANNULAS;
    b) TRANSFUSION SETS;
    c) FLUIDS (R L , N S , D N S, D 5%, D 10%, D 25%, HYPERTONIC SALINE, COLLOIDS ;
    d) BLOOD AND ITS PRODUCTS;
    e) TEMPERATURE MAINTENANCE OF TRANSFUSION FLUIDS;

03. **RECORD MAINTENANCE** (PATIENTS, EQUIPMENTS & DRUGS-ESPECIALLY CONTROLLED DRUGS); (05 MARKS)

04. **BASIC LIFE SUPPORT** / CARDIO-PULMONARY RESUSCITATION, ANAPHYLACTIC REACTIONS; (10 MARKS)

05. **REFRIGERATION** & MAINTENANCE OF COLD CHAIN; (05 MARKS)

06. **THEATRE POLLUTION**, FIRE & ELECTRICAL HAZARDS IN OPERATION THEATRES AND WAYS TO MINIMISE THEM; (05 MARKS)

07. **PREPARATION FOR REGIONAL ANESTHESIA AND EQUIPMENT REQUIRED**; (05 MARKS)

08. **PATIENT POSITIONING**; (05 MARKS)

09. **BASIC ANATOMY OF** :- (10 MARKS)

a) AIRWAY;
b) TRACHEO-BRONCHIAL TREE;
c) HEART WITH GREAT VESSELS;
d) PERIPHERAL VESSELS;
e) GENITO-URINARY SYSTEM;
f) CENTRAL NERVOUS SYSTEM;

10. **BASIC PHYSIOLOGY OF**:- (05 MARKS)

a) BREATHING / RESPIRATORY CYCLE, VOLUMES & CAPACITIES, HYPOXIA, HYPERCARDIA;
b) CARDIAC CYCLE, CARDIAC OUTPUT, STROKE VOLUME, VARIATIONS OF HEART RATE & RHYTHM, NORMAL BLOOD PRESSURE;
c) AUTONOMIC NERVOUS SYSTEM;
d) NORMAL URINE OUTPUT, NORNAL CONSTITUENTS OF URINE, NORMAL RENAL FUNCTION PARAMETERS;

11. **BASICS OF PHARMACOLOGY**:- (05 MARKS)

a) PHARMACO-KINETICS;
b) PHARMACO-DYNAMICS;
c) ROUTES OF DRUG ADMINISTRATION;
d) DRUG HALF- LIFE;
e) DURATION OF ACTION;
f) METABOLISM & EXCRETION;
g) ADVERSE DRUG REACTIONS.

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Annexure "10"

Syllabus for Written test (Objective Type) for the posts of LEGAL ASSISTANT, Enforcement Inspector, Presenting Officers, Prosecutor

MAX. MARKS: 150
Time: 2.30 hrs

CONSTITUTIONAL LAW: ***20 Marks***

- *Salient features of Indian Constitution.*
- *Parliamentary form of Government.*
- *President of India- Election, Qualifications, Impeachment, Position, Powers and Privileges.*
- *Cabinet System, Collective responsibility-Individual responsibility, President-Prime Minister relationship*
- *Principles*
  - *Distribution of Legislative Powers (Art. 245, 246 & 254)*
  - *Failure of Constitutional Machinery (Art. 356)*
  - *J&K Special Status (Art. 370)*
- *Constitutional Amendments – Methods and limitation (Art. 368)*
- *Freedom of Trade and Commerce*
- *Regulatory and Compensatory measures (Articles 301-304).*
- *Articles 141 and 143.*
- *Appointment and impeachment of the Judges of the High Courts and Supreme Court.*
- *Services under the Constitution- Doctrine of Pleasure (Art. 310), Restrictions (Art. 311)*
- *Fundamental Rights (Articles 14-16, 19-22 and 25-30).*
- *Constitutional remedies.*
  Writ Jurisdiction
  - *Scope of Article 32*
  - *Scope of Article 226*
- *Directive Principles of State Policy; Relationship between Directive Principles and Fundamental Rights.*
- *Emergency Provisions: Arts 352 to 354, 358 and 359.*

ADMINISTRATIVE LAW: ***15 Marks***

- *Classification of Administrative Action:*
  - *Definition of*
  - *administrative actions.*
  - *Need for classification*
  - *Identification of legislative action*
  - *Identification of quasi-judicial and administrative actions. Legislative powers of administration.*
  - *Necessity for delegation of legislative powers and its constitutional validity.*
- *Principles of Natural Justice:*
  a) *No man shall be judge in his own cause.*
  b) *No man shall be condemned unheard.*
- *Administrative Discretion*
  - *Need for Administrative Discretion*
  - *Administrative Discretion and rule of law*
  - *Need for safeguards.*

- *Doctrine of Excessive Delegation of Discretion*
  - *Constitutionality of discretionary powers*
  - *Administrative discrimination and arbitrariness*
- *De tournament De preuvoir*
  - *Malafide exercise of discretion Improper purpose*
  - *Irrelevant considerations Unreasonableness*
  - *Non-exercise of discretionary powers*
- *Liability of the Government*
  - *Statutory- immunity*
  - *Act of State*
  - *Contractual liability of Government*
  - *Government privileges in legal proceedings*
  - *Public accountability*
- *Ombudsman*
- *Vigilance Commission.*

MUSLIM LAW: ***05 Marks***

- *Sources and Schools of Muslim Law.*
- *Nature, scope, validity and classification of marriage under Muslim Law*
- *Polygamy, Divorce and matrimonial remedies under Muslim Law*
- *Dissolution of Muslim Marriage Act, 1939.*
- *Maintenance under section 125 of the Code of Criminal Procedure, 1973.*
- *Maintenance under Muslim Women (Protection of Rights on Divorce) Act, 1986*

HINDU LAW: ***05 Marks***

- *Nature, concept and essential conditions of Hindu Marriage.*
- *Grounds of divorce and divorce by mutual consent under Hindu Law*
- *Matrimonial remedies under Hindu Law:*
  - *Nullity of marriage*
  - *Restitution of conjugal rights*
  - *Judicial separation*
  - *Dissolution of marriage*
- *Joint family and coparcenary under Mitakshara law*
- *Karta-his powers, privileges and obligations.*
- *Adoption and Guardianship.*

Law of Contract ***15 Marks***

- *Agreement and contract – Definitions, elements and kinds.*
- *Proposal and acceptance: their various forms, essential elements, communications and revocation.*
- *Intention to create legal relationship.*
- *Consideration: its need, meaning, kinds, essential elements-privity of contract, promissory estoppel, exceptions to consideration; adequacy of consideration; present, past and executary consideration; unlawful consideration and its effects; views of Law Commission of India on consideration; evaluation of the doctrine of consideration.*
- *Capacity to contract: meaning, definition of minor, necessities supplied to a minor, agreements beneficial and detrimental to a minor affirmation- restitution in cases of minor's agreement-fraud by minor- agreements made on behalf of a minor's agreement and tested-evaluation of the law relating to minor's agreement.*
- *Quasi-contracts of certain relations resembling those created by contracts*
- *Damages: kinds- Remoteness of damages- ascertainment of damages.*
- *Specific performance of contracts.*
- *Contract that can be specifically enforced.*
- *Rescission and cancellation.*
- *Injunction.*
- *Indemnity: Definition, nature and extent of liability of the indemnifier, commencement of liability of the indemnifier.*

- *Guarantee: Definition, basic essentials for a valid guarantee contract, Nature and extent of surety's liability, discharge of surety's liability.*
- *Bailment: Definition, kinds of bailees, duties of bailor and bailee towards each other, rights of bailor and bailee, finder of goods as a bailee.*
- *Agency: Kinds of agents and agencies; Distinction between agent and servant; Essentials of agency transaction; Various methods of creation of agency; delegation.*
- *Sale of Goods: Concept of sale as a contract; Essentials of a contract of sale; Implied terms in contract of sale; Rule of Caveat Emptor and the exceptions thereto; Changing concept of Caveat Emptor; Unpaid seller and his rights.*

Company Law ***10 Marks***

- *Concept of registration and incorporation; Memorandum of Association, Doctrine of ultra vires; Articles of Association; Doctrine of constructive notice and indoor management; Prospectus-statement in lieu of prospectus;*
- *Promotors- position, duties and liabilities;*
- *Directors- position, appointment, qualifications, vacation of office, removal, resignation, powers and duties of directors; meeting registers, loans, remuneration of directors, role of nominee directors-compensation for loss of office- managing directors- compensation for loss of office-managing directors and other managerial personnel;*
- *Meetings- kinds- procedure- voting;*
- *Debentures- meaning- fixed and floating charge- kinds of debentures- shareholder and debenture holder- remedies of debenture holders.*
- *Protection of minority rights.*
- *Winding up- types- by court- reasonable- grounds- who can apply- power of court-consequences of winding up order- voluntary winding up by members and creditors- winding up subject to supervision of courts- liability of past members- payment of liabilities- preferential payment, unclaimed dividends, winding up of unregistered company.*

Labour Laws ***15 Marks***

- *Definition of Trade Union and the right to form the Trade Union.*
- *Legal Control and Protection of Trade Union: Registration, amalgamation, rights, immunities, liabilities and dissolution. Trade Union Funds.*
- *Collective bargaining.*
- *Strikes, lock-outs, lay off and retrenchment. Transfer and closure.*
- *Unfair labour practices.*
- *Disciplinary proceedings.*
- *Labour welfare: concept, classification and importance.*
- *Obligations of employer for health, safety and welfare.*
- *Working hours of adults and Annual Leave with wages.*
- *Employment of young persons: prohibition of employment of children, regulation of employment of young persons.*
- *Concept of minimum wage, fair wage, living wage and need based minimum wage.*
- *Procedure for fixation and revision of minimum wages.*
- *Components of wages: dearness allowance, principle of fixation.*
- *Definition of wage under Payment of Wages Act, 1936 and responsibility for payment of wages.*
- *Concept of employer, workmen, dependent, disablement.*
- *Workmen's compensation: employer's liability for compensation, amount and distribution of compensation.*
- *Employee's State Insurance: benefits, ESI fund and contribution.*

CRIMINAL LAW ***15 Marks***

- *Indian Penal Code: General defences (Sections 76-106); Group liability (Sections 34 & 149); Unlawful Assembly, Rioting and Affray; Abetment; Criminal Conspiracy; Criminal Attempt; Offences against body (Sections 299-304, 319-326, 339-343, 349-353 and 359-363); Offences against property (Sections 378, 379, 383, 384, 390-392, 395, 405, 415-417, 425 and 426).*

JURISPRUDENCE ***15 Marks***

- *Meaning and scope of Jurisprudence; Nature and definition of "Law"; Schools of Law (Analytical positivism, Natural Law, Historical School and Sociological School); Sources of Law (Legislation, precedents, customs and juristic writings); Rights and duties- concept and co-relationship); Concept of person, Ownership and Possession.*

INTERNATIONAL LAW AND HUMAN RIGHTS ***25 Marks***

- *Origin, Development, Definition, Nature and Theories of International Law; Its relation with Municipal Law.*
- *Sources of International Law, Custom. Treaties. General Principles of Law and writings.*
- *Subjects of International Law: State including Recognition of States; Individuals and peoples; International Organizations.*
- *Jurisdiction of States: Territorial, Personal and Universal.*
- *Extradition and Asylum.*
- *Law of State Responsibility.*
- *Peaceful Settlement of Disputes including settlement by ICJ.*
- *Use of Forces under International Law.*
- *Human Rights: Origin, development and nature of Human Rights; International Bill of Human Rights; Regional Systems of Human Rights Law; Protection of Human Rights Act and International Humanitarian Law.*

ENVIRONMENTAL LAW ***10 Marks***

- *Environmental Pollution: Meaning and issues.*
- *Constitutional provisions-Art. 14, 19(1)(g), 21, 48A & 51A, right to wholesome environment-evolution and application. PIL and protection of Environment.*
- *Water and Air Pollution Control Acts:*
    - *Standards, CPCB and SPCB, Consent Mechanism, Control Areas and Restraint Orders*
    - *Citizen Suit and Access to Environmental Information*
- *Corporate and Governmental Liability for Environmental Offences*
- *Environmental Protection Act, 1986 and other environmental legislations International Environmental Law and Norms:*
    - *Stockholm Declaration, Global Warming and Ozone Conventions*
    - *Sustainable development, Public Trust Doctrine*
    - *Precautionary Principle, Polluter Pays Principle*
- *Local Environmental Laws and Problems in J&K:*
    - *Forest Act, 1930, J&K Wildlife Protection Act, JEK Forest (Conservation) Act (Summary of the provisions with special emphasis on Forest Dwellers and Forests, medicinal plants and related traditional knowledge)*
    - *Protection of Biodiversity in J&K- Local Laws and Central Acts- Forest (Protection) Force Act*
    - *Preservation and protection of lakes and waterways in J&K- Existing related laws and future needs.*

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Annexure "11"

"JR. PHYSIOTHERAPIST"

SYLLABUS FOR WRITTEN TEST

Marks :-150
Time :- 2.30 Hours

1. A) Anatomy : 10 Marks

I. Histology-cell tissue of the body, epithelium, connective tissue, cartilage, bone, blood, lymph, muscles, nervous system.
II. Osteology- formation, classifications, functions, growth and repair of bones.
III. Embryology- Ovum, Spermatozoa, Fertilization, organogenesis, Development of various systems.
IV. Blood Vascular system –arteries, capillaries, veins, lymphatic system.
V. Respiratory System –anatomy of larynx, trachea and bronchi, the pleura, the lungs.
VI. Digestive system
VII. Urogential system
VIII. Surface Anatomy.

B) Neuro- anatomy: Microscopic and gross study of : 08 Marks

I. Peripheral Nerves
II. Neuromuscular Junction
III. Sensory Organs
IV. Spine Cord- Segment & Areas
V. Brainstem
VI. Cerebellum
VII. Inferior colliculi
VIII. Superior Colliculi
IX. Diencephalon
X. The Hypothalamus
XI. The Hypothalamus
XII. The thalamus
XIII. The Cerebral Hemispheres
XIV. The Corpus Striatum
XV. The Rhinencepghalon
XVI. The Lateral Ventricles
XVII. The Meninges
XVIII. The Blood supply of the Brain

2. HUMAN PHYSIOLOGY 09 Marks

I. Structure of Human Cell
II. Elementary tissues of Body
III. Blood , composition, function , Grouping Blood Disorders.
IV. CVS(Cardio Vascular System) Structure of Heart, Cardiac cycle, Hypertension Cardiac disorders reference to Physiology.
V. Digestive System –Physiology anatomy, Process of digestion, organs of digestion and disorders.
VI. Respiratory system –structural Physiology process of respiration
VII. Excretory system; detailed structure of kidney , funtction, disorders,
VIII. Elementary knowledge of structure and function of organ of taste, smell, eye and skin.
IX. Endosionology ; All the endosine glands in detail
X. Reproductive system; physiology /Anatomy
XI. Introduction to pathology
XII. Repair and inflammation XIII.
XIII. Pathological terms
XIV. Pathology of various organs
XV. Role of pathology in physiotherapy
XVI. Review of pathology changes of various organs and their treatment
XVII. Drugs action on central nervous system. Anesthetics, alkaloids , narcotics, analgesics, antipyretics, sedatives, anticonvulsants,
XVIII. Drugs action on cardiovascular System, neuromuscular system, respiratory system.
XIX. Drugs acting with Peripheral Nervous system
XX. Chemotherapy
XXI. Hormones and drugs effecting Endocrine functions
XXII. Vitamins
XXIII. Metallic and other Inorganic compounds
XXIV. Immunological agents
XXV. Diagnostics.

3. EXERCISE THERAPY & MASSAGE 08 Marks

I. Mechanical anatomy of motion and posture
II. Exercise of the shoulder and hip and evaluation
III. Exercise of the Foot and Hand evaluation
IV. Exercise of the Knee and elbow and evaluation
V. Vicarious motion
VI. Joint motion assessment
VII. Manual muscle examination
VIII. The therapeutic gymnasium
IX. Exercise based on Neuro Physiological Principles
X. Crutch and cane exercises
XI. Gait training
XII. Principles of therapeutic exercise
XIII. Postures
XIV. Exercises for healthy persons

XV. Activities of daily living
XVI. Exercise of spine
XVII. Massage
XVIII. Suspension therapy
XIX. Neuro muscular co-ordination
XX. Starting postions
XXI. Cryotherapy.

4. ELECTRO THERAPT & ACTINO THERAPY 30 Marks

A) Medical Electronics

I. Electrical fundamentals
II. Electron tubes
III. Power supplies
IV. Amplifiers
V. Oscillators
VI. Cathocde ray tubes
VII. Transistors
VIII. Recorders
IX. Transducers
X. Radiation
XI. Principles of designs and circuits of infrared and ultra violet generators, shortwave diathermy, microwaves, ultrasonics and electrical stimulator
XII. Signal processes
XIII. Display devices and indicators
XIV. Magnetic tape recorders
XV. Data transmission and processing

B)

I. Physics of heat
II. Thermometry
III. Biophysics of diathermy
IV. Physiology of heat and cold
V. Thermal radiation, pain and injury
VI. General principle of thermotherapy
VII. Conducting heating
VIII. Luminous and ifra-red heating
IX. High frequency instrumentation
X. Short wave diathermy
XI. Microwaves
XII. Ultrasound therapy
XIII. Instrumentation of electrotherapy
XIV. Therapeutic electro stimulation
XV. Lonotophoresis
XVI. Electrosleep Therapy and anaesthesia
XVII. Instrumentation for ultraviolet therapy
XVIII. Physiological affects of Ultraviolet radiation
XIX. Low frequency currents
XX. T.N.S.

XXI. Inteferential therapy
XXII. Wax Therapy

B) ELECTRO –PHYSIOLOGY

I. Bio-Electricity
II. Electric potential generated by cell
III. Electrogenic membrane response
IV. Chemo responsive eletrogenic system
V. Propagation of nerve impulse
VI. Neuromuscular Junction
VII. Synapse
VIII. Muscle Electronic
IX. Electrophysiology of CNS
X. Chronaxy
XI. Strength duration curves
XII. Electromyography
XIII. Electrical duration curves
XIV. Nerve conduction studies
XV. Microneurography
XVI. Reflex Physiology Monosynaptic and Polysynaptic reflexes
XVII. Spinograms
XVIII. Cerebrai evoked potentials.

5. PSYCHOLOGY 05 Marks

I. Definition and scope of psychology in relation to occupational therapy Physiotherapy.
II. Methods of studies in Psychology.
III. Psychological Development of human individual from conception to birth to old age.
IV. Special needs, characteristics and problems of the various groups of Handicapped.
V. Learning, factors affecting learning, disabilities techniques to deal with implications of various handicaps in the learning process. Principles of learning for various handicapped groups, Teacniques of motivating the handicapped children.
VI. Adjustment, criteria of mental health, adjustment problems faced by handicapped children, counseling and guidance with special reference to the physically and mentally handicapped.
VII. Interaction with the family, community and poor groups Communication pattern, specific problems faced by handicapped, development of social skills and sensitivity training.
VIII. Role of Psychologist in Rehabilitation of the handicapped.

6. MEDICINE 12 Marks

General Medicine including Respiratory Diseases

I. Infection and antibacterial agents.
II. Infections and Diseases
III. Poisons and Venoms
IV. Chemical and Physical agents carrying diseases

V. Diseases of Metabolism.
VI. Deficiency Diseases
VII. Diseases of Endocrine Glands.
VIII. Diseases of Digestive System.
IX. Diseases of Lymphatic System
X. Diseases of Blood
XI. Diseases of Cardio- vascular system, Circulatory failure, Ischemic heart disease, Hypertension Pulmonary Heat Diseases, Congenital heart Disease, Peripheral vascular diseases, Embolism and Thrombosis, Collagen diseases.
XII. Diseases of the Respiratory System-the trachea, the bronchi, the lungs, the disphragm, the pleura.
XIII. Diseases of the Kidney
XIV. Diseases of the Shin sensory disorders, Pigmentary Anemelies, vasomotor, Disorders, Dermatitis, Coccal Infections, Fungus Infections, Cutaneous, Tuberculosis, Virus infection, Parastitic infections, Erythmatous conditions, Scleroderma of the Hand, Tropical skin diseases.
XV. Psychiatry:

- Definition and introduction to Psychiatry in relation to OT &
- PT Concept of normal and abnormal
- Behavior disorders:- Causes & management
    a) Psychonenrotic disorders
    b) Psychotic disorders
    c) Psychosomatic disorder
- Techniques of Therapy
    Psycho Therapy:
    a) Group Therapy
    b) Psychodrama
    c) Behaviour modification

7. SURGERY 13 Marks

A) General surgery and cardio-vascular and thoracic surgery.

I. Surgical wounds, haemorrhage, shock, water and Electrolyte Balances, Burns.
II. Surgery of head and neck , alimentary systems and genitor-urinary system x
III. Neuro Surgery
IV. Cardio-Vascular and Tghoracic surgery
V. Gynaecology and obstetrics: pelvic inflammatory conditions, complications during and following pregnancy prolapsed uterus.
VI. ENT

B) ORTHOPAEDICS

I. Postural defects anteroposterior and lateral curve of the spine, the feet genu valgum genu varum.
II. Back pain
III. The spine, the intervertebral disease, osteoporosis, Ankylosing spondylitis, spina bifida, toriticollis, tuberculosis of the spine and sacro- illac joints Osteomyehtis, Tumours.
IV. The Hip congential dislocation , coxa vara, tuberculos bursits

V. The knee- injuries to medical ligament, lateral ligament, Semulunar cartilages, cruicate ligament, chronic strain , chondromalacia patella, locking rheumatoid Arthritis

VI. The Foot and ankle painful feet, pesavus, halux, valus gout, painful heel, the ligaments of the ankle tuberculosis,

VII. The foot and ankle painful feet, pesavcus hallux valgus Gout painful heel the ligaments of the ankle, Tuberculosis, stress fracture

VIII. The shoulder grirdle pain the shoulder, cervical spondylosis, carpal Tunnel syndrome, cervico Brachial Junction Recrurrent dislocation of the shoulder, Tuberculosis.

IX. The elbow tennis elbow, myositis ossificans, ulnar palsy, tuperculosis.

X. The wrist and hand tenosynovitis, tuberculosis ganglion, rupture of tendons contractures.

XI. Pyogenic infection

XII. Tuberculosis

XIII. Chronic aerthrits rheumatoid and osteoaetrghritis

XIV. Diseases of nervous system, ploliomtyelitie, cerebral Palsy

XV. Common fractures o spine and extremities.

- Trauma Therapy
- Play thereaphy
- Drug Therapy
- E.C. T.

The role of psychiatrist in dealing with the problems of mental health

XVI. Paediatrics.

XVII. Geriatrics

XVIII. Nursing and Bandaging

C)

I. Disorders of functions in the context of Pathophysiology & Anatomy

II. The Cranial Nerves

III. Infections of the Nervous System

IV. Disorders of the Cerebral Circulation

V. Demyelinating diseases of the nervous system

VI. Extropyramidal syndrome

VII. Tumours and the nervous system

VIII. Convential and degenerative disorders

IX. Disorders of the spinal Cord and Cauda Equina

X. Toxic disorders

XI. Metabolic disorders

XII. Deficiency disorders

XIII. Disorders of the peripheral nerves

XIV. Disorders of the Muscles

XV. Disorders of autonomic nervous system

XVI. Psycholgical aspects of neurology.

8. PHYSICAL THERAPY IN MEDICAL CONDITIONS 15 Marks

A) PHYSICAL THERAPY IN NEUROLOGICAL CONDITIONS

I. I. Examination of Neurological disorder and principles of treatment
II. Hemiplegia, paraplegia, cerebral palsy, Tabes dorsalism crebellar alaxia, extra pyramidal lessons.
III. Disseminated sclerosis muscular atrophy, amytrophic lateral schlerosis, progressive muscular atrophy, syringomyelia, sub acute combined degeneration of cord
IV. Peripheral Nerves lesions
V. Neuritis and Neuralgia Brachial sciatica and facial palsy
VI. Infections-Poliomyelitis, Meningitis, Encepghalitis, Pllyneuritis
VII. Myopathies
VIII. Paediatics and Geriatrics

B)

I. Pathological conditions:

I. Review of pathological changes and principles of the treatment by physiotherapy of: Inflammation act acute chromic and suppurative.
II. Oedema Traumatic, Obstructive, Paralytic, Oedma due to poor muscle and laxity of the fascia.

II. Arthritis and Allied conditions:

i. Osteo arthritis generalized , degenerative and traumatic, spondylosis and disorders
ii. Rheumatiod arthritis, stills disease, infective arthritis
iii. Spondylitis, Ankylosing spondyliitis
iv. Non articular Rheumatism Fibrositism, Myalgia, Bursits, Periathritis etc

III. Diseases of the Reparatory System:

i. Mechanism of Respiration
ii. Examination of chest of patient and principles of physiotherapy treatment.
iii. Bronchitis, Asthama, Lung Abscess, Bronchiectasis, Emphsema
iv. Pleurisy and Empyemam, Pneumonia
v. Bacterial Disease-Tuberculosis
vi. Tumors

IV. Common conditions of skin

Ane, Psoriasis, alopecia, Leucodema, Leprosy etc

V. Common Cardiac Discordrs:

Thrombosism, Embolism, Burger's disease, Arterisclerosis, Thrombophlebitis, Phlebitis, Gangrene, Congestive Cardiac failure, Hypertension, Rheumatic fever etc

VI.

VI. Deficiency Diseases:

Rickets, Osteomalacia etc.
Rickets, Osteomalacia etc.

I. Orthopaedic and fractures

i. Fractures and dislocations
ii. Types of displacement
iii. Classification
iv. Immediate , late signs and symptoms
v. Changes at fracture site and its surrounding tissues
vi. Reasons for union, non-union , delayed union
vii. Healing of fractures and factors influencing it
viii. Common fractures of upper and lower extremity and their complications

ix. Methods of reduction and fixation
x. Corrective surgery
xi. Arthoplasty, Arthodesis, Osteotomy, Tendon, Transplant, Soft Tissue release, Grafting.
xii. Phsiotherapy treatment as applicable to above conditions.

II. INJURIES

i. Soft tissue injuries: synovitis, Capsulitis Volkmann's ischemic contracture etc
ii. Crush injuries
iii. Repair of injured tendon and nerves
iv. Injuries of semilunar cartilage and cruicate ligaments knee: Physicala Therapy treatment as applicable to above conditions.

III. Deformities:

i. Congenital, torticollis, Cartilage and cruciate ligaments knee: Physicala Therapy Treatment as applicable to above conditions
ii. Acquired: Scoliosis, Kyphosis, Lordosis, coxa vara, Genu Valgum, Genu varum and pervurvatum, Planus and other common deformities.
iii. Other miscellaneous Orthopaedic conditions commonly treated by Physiotherapy.
iv. Physical therapy treatment related to above conditions.

IV. Amputations:

i. Traumatic, elective, common sites of amputation in Upper & Lower extremities Advantages and disadvantages physical Therapy treatment as applicable to care of prosthetic training with emphasis on Lower extremity.

B)

I. Complications common to all operations: pre and post operative physiotherapy.

II. Wounds, local infections, ulcers Surgical porocedures related to peripheral vascular disease.

III. Burns –Degree, Grafting of skin.

IV. General abdominal surgery and obstertrics and Gyneaecology.

a) Thoracis Surgery

i. Thoracis incisions pre and post operative treatment and later rehabitlitation of the patent.
ii. Lobectomy, pneumonectomy, Thoracotomy, Thoracoplasty
iii. Operations on Chest Walls
iv. Common complications with emphasis to altectasis Peneumothorax, bronchopulmonary fistula, pre and post operative physiotherapy related to Cardio thoracic surgery
v. Operations on Precardium and Heart, Chronic Constructive pericarditis, valvular in competence and Stasis, mitral, valvotomy, tetrology of Fallot.

b) Ear, Nose and thorat conditions:

c) Neuro surgery otitis simusites vaso motor, Rhimorrhoea, tonsillitis
physiotherapy it above conditions.

i. Cranial Surgery:
ii. Head Injury, intra cranial abscess, Intracranial Tumours.
iii. Surgery of spinal Cord and Couda Equina, spina Bifida and its complications, infections of the spine , Epidural Abscess, Tuberculosis, pre and post operative physiotherapy laminctomy, treatment related to above conditions.
iv. Surgery of peripgheral Nerves , peripheral nerve injuries , pre and post operative physictherpy treatment related to above conditions.

d) Pre and Post Operative Physiotherapy, related to Plastic Surgery:

i. Tendon transplantation in Leprosy, Polio etc. Pre and Post operative Physic therapy treatment related to above conditions.

10. Bio-Mechanics and Kinesiology 05 Marks

I. General Principles
II. Force, axis, planes, center of gravity levers
III. Classification of force systems
IV. The linear force system resultant force equilibrium
V. Parallel forces in one plane
VI. Concurrent and genral force system
VII. Friction
VIII. The fundamental principles of motion
IX. Locomotion.

11. Disability prevention and Prehabilitation 10 Marks

I. Introduction
II. Definition concerned in the phase of disability process
III. Definitions concerned with cause of impairment, factional limitation and disability
IV. Rehabilitation and disability prevention
V. Present rehabilitations services
VI. Reservation & Legislation for rehabilitation services for the disabled
VII. Community and Rehabilitation
VIII. Basic principles of Administration, Budget, Approach Personnel and Space etc.
IX. Contribution of Social worker towards rehabilitation
X. Vocational evaluation and goals for disabled.
XI. Rural rehabilitation in-corporated with PHC's
XII. Principles of Orthotics & Prosthetics:
- Lower Extremity orthotics/Upper extremity; orthosis
- Spinal Orthotics
- Upper ectremity prosthetics
- Lower Ectrermity Prosthetics

XIII. Principle of Communiation: Impariment
- Speech Production
- Communication disorders secondary to Brain damage
- Aphasia and its treatment
- Dysarthria and its treatment
- Non- aphasic language disorders

XIV. Code and Conduct
XV. Ethics and Management:

a. Principles in Management of Social Problems:
- Social needs of the patient
- Rehabilitation centre Environment
- The Social worker as a Member of the Rehabilitation Team
- Community Resources

b. Principles in Management of Vocational Problems:
- Vocational Evaluation
- Vocational goals for the disabled

XVI. Mental Subnormality:
- Identification and assessment of the mentally subnormal
- Classification of the Mentally subnormal
- Common characteristics of different categories of the mentally subnormal
- Training of the mentally subnormal

XVII. Definition Scope and importance of A. D. L.

XVIII. Goals of Self Help Devices

XIX. Teaching A. D. L. in the following areas:-
- Wheel Chair Activities Bed Activities
- Self Care Activites
- Toilet, Eating Dressing, Miscellaneous Hand Activities.

XX. Principles of design materials used

XXI. A. D.L Form

XXII. A. D. L. Room

XXIII. Relationship of ADL to occupational Therapy and Physiotherapy

XXIV. National Health Programmes

XXV. Bio-Medical Waste.

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Annexure "12"

"PHYSICAL EDUCATION TEACHER (PET)"

SYLLABUS FOR WRITTEN TEST

Marks :-150
Time :- 2.30 Hours

Foundation of Physical Education: 10 Marks

- Introduction, Definition, Aim and Objectives of Physical Education.
- Role of Physical Education in General Education.
- Modern trends in Physical Education.
- Personal qualities and professional qualifications of Physical Educator.
- Character development through Physical Education.
- Development of leadership qualities through Physical Education.
- Sports in Educational Institutions.

Psychological and Sociological Aspects of Physical Education 10 Marks

- Growth and Development.
- Effect of Heredity and Environment on Growth and Development.
- Individual and sex difference, Structural and functional difference
- Concept of Learning, theories and laws of leaning.
- Personality
- Socialization Process through Physical Education & Sports.
- Sports as cultural Heritage of mankind, Customs & traditions

Anatomy and Physiology: 10 Marks

- Major muscles their origin, insertion and actions.
- Skeletal muscles structure and function
- Joints and their classification.
- Structure of the heart, systematic, pulmonary and portal circulation.
- Respiratory system.
- Digestive system
- Endocrine and Nervous System

Health Education: 20 Marks

- Concept & Objectives of health Education and factors affecting it.
- Personal and School hygiene.
- School health programs.
- Nutrition and Balance diet
- Common communicable diseases its prevention and treatment.
- Drug abuse-alcohol, smoking and Doaping.
- Pollution

Tournaments and Teaching Aids: 10 Marks

- Tournaments- meaning and its types.
- Organization of physical education and sports competition at different Levels.
- Fixture for various tournaments,
- Different methods of teaching.
- Steps of effective teaching.
- Types of class formation in teaching and learning process.
- Teaching aids (audio visual Aids)

Recreation & Yoga 10 Marks

- Principles and types of modern recreation.
- Theories of recreation. Recreation during ancient and modern India.
- Recreation Programs for different age groups People.
- Difference between work, leisure and play.
- Camping, organization of Camp, its types, layout and activities.
- Preparation and Nature of Mobile Camp
- Meaning, objective of yoga its Origin. Types of yoga, Advantages of Asanas, Precations and effect of Asanas.

Officiating and Coaching: 40 Marks

- Concepts of officiating and Coaching
- Modern Trends in Coaching
- Layout of standard track.
- Dimension and marking for track and field events i.e. running, jumping and throwing.
- Rules and their interpretation of track and field events.
- Rules and regulations of different games (football, volley ball, hockey, basket ball, cricket, kho -kho, kabaddi and badminton
- Sports personalities, sports awards and sports terminologies.

Historical Perspective: 10 Marks

- Physical education in India.
- Physical education in Greece.
- Physical education in USA, and Denmark.

- Physical education in Rome and USSR
- Post independence development of physical education in India.
- Contribution of Different Leaders towards Physical Education:
  Per Henrik Ling. Johan Bernardh Basedow, H.C. Buck, G.D. Sondhi, Guts Muth, Pandit Jawahar Lal Nehru.
- International Movements in Sports (Olympics, Asian & Common Wealth Games

Sports Management — 15 Marks

- Meaning and Definition of Sports Management. Definition of Organization and Administration.
- Basic principles and theories of Sports Management.Concept of Organisation and Administration, its importance and Guidding principles of Organization.
- Schemes of Physical Education and sports in School, Districts, Colleges and Universities level.
- Supervision in Managements: Methods of Supervision, techniques and Principles of Supervision.
- Teaching methods, types importance and factors effecting lesson Planning Teaching Method Lesson plan.
- Time-Table Management: Principles and factors influencing the time table lesson Plan: Types and values of lesson plan.

Sports Management — 15 Marks

- Concept of Sports training, its Characteristics and Principles
- Training Methods (circuit, fartlek, continuous, interval, weight and Ploymetrics)
- Development of Different motor abilities (speed, strength, flexibility, Endurance and coordinative abilities
- Short term and long term Training plan.
- Talent identification
- Principle of exercise, normal load, and over load.
- Principle of use, disuse and over use

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Annexure "13"

Sub: Syllabus for written test (Objective Type) for the post of FEMALE MULTIPURPOSE HEALTH WORKER (FMPHW)

Marks :-150
Time :- 2.30 Hours

Science –I ***25 Marks***

- *Anatomy and Physiology*
- *Microbiology*
- *Psychology*
- *Sociology*
- *Hygiene*
- *Nutrition.*

Fundamentals of Nursing-I ***25 Marks***

- *Section "A" introduction to Nursing and Nursing procedures.*
- *Section "B" Nursing techniques*
- *Section "C" First aid and emergency nursing.*

Fundamentals of Nursing-II ***25 Marks***

- *Section A introduction to Child Health.*
- *Section B introduction to Maternal Health.*
- *Section C introduction to Family Health and Community Health.*

Community Health Nursing-I ***20 Marks***

- *Section A Domiciliary Midwifery.*
- *Section B Midwifery and Hepernitoy Nursing.*
- *Section C Family planning and family welfare.*

Community Health Nursing-II ***25 Marks***

- *Section A Nutrition Education.*
- *Section B Health Education.*
- *Section C Communication skills and Audio-visual aids.*

Community Health Nursing-III ***30 Marks***

- *Section A Basic Medicine and Pharmacology.*
- *Section B Health Problems and Plans.*
- *Section C Communicable Diseases.*
- *Section D Mental Diseases.*

ANATOMY

(i) Introduction

(ii) Skeletal system over view of skeletal system, Bones, bone development and the repair, axial skeleton, appendicular Skeleton, surface anatomy and land-marks.

(iii) Structure and function of joints, types of joints, muscular system introduction over vies of skeletal muscles chief muscles and group of muscles.

(iv) Heart, Structure.

(v) Respiratory system structure

(vi) Human Reproductive System structure and Embryology (Prenatal).

PHYSIOLOGY

.

(i) Introduction

(ii) Organization of living things.

(iii) Cells, tissues, organs, cavities and body system.

(iv) Typical cell structure, properties of cell, living processes, tissues, types, structure and functions, the skin.

(v) Muscular system-Structure.

(vi) Muscle contraction and properties of muscle.

(vii) Nervous System –division of the nervous system, brain and its functions, oriental nerves, spinal nerves.

(viii) Special senses structure function and location of organs of special senses, eye structure and function of visual apparatus, ear structure and function of auditory apparatus.

(ix) Maintaining the metabolism of the body circulatory system-blood composition, blood cells and plasma, hemoglobin , blood coagulation bleeding time, blood grouping and cross- matching physiological structure of heart and function, heart sounds and heart rates, circulation – systematic and pulmonary, blood vessels, pulse, venous and capillary system.

(x) Digestive system the alimentary tract oral cavity stomach, small and large intestines peristalsis digestion salivary glands. Liver pancreas and gallbladder enzymes absorption and assimilation of food.

(xi) ***ECRETORY*** *system –Excretory organs location, structure and function. The urinary tract, urine formation composition of urine, micturition . Water and salt balance.*

(xii) Endocrine system-overview of the endocrine system, endocrine glands location, structure and function body temperature regulation.

(xiii) Human Reproduction

(xiv) ***Embryology, parental Development, maturation of*** *reproduction Organs.*

The male reproductive tract external, organs. The Female reproductive tract external organs, menstrual cycle, hamones and reproduction.

Principles of organizing care according to head of the patient. *(Seriously ill, Chronically ill)*

Moderately ill, terminally.

Principles of organizing care according at patient group.

Maintenance of supplies, equipments and other facilities.

Records and Reports*.*

Health records, family care records, medical records, use of diaries by health workers understanding the system of reporting and recording referral system.

Maintaining a Healthy environment cleanliness of unit and sick room cleanliness of furniture, floors, space and surfaces doors and windows disposal of waste, garbage.

NURSING PROCEDURES AND TECHNIQUES

(i) Meeting hygienic and comfort needs care of skin , care of hair, care of hands, care of eyes, nutrition mouth care elimination, exercise , body.

(ii) Maternal heath factors.

Socio-economic factors affecting maternal health.

Section C- Introduction to family health and Community health.

a) Family health care.

The family as integral unit of the health services,

- *Preventation and control of communicable diseases.*
- *Home visiting and domiciliary health.*

b) Introduction to Community health.

c) Environmental Health and Sanitation.

d) School health Services.

COMMUNITY HEALTH NURSING - (I)

Domidiloary Midwifery

(i) Contacting antenatal mothers.
(ii) Conducting a delivery in the home.
(iii) Post –Natal care. Records to be maintained.

Midwifery and maternity nursing

(i) The reproductive system
(ii) Growth and development of foetus
(iii) Pregnancy
(iv) Labour
(v) Normal puerperium
(vi) Complication of pregnancy
(vii) Complication of labour.
(viii) Obstetric operations.
(ix) Drugs used in obstetrics

Family planning and welfare.

(i) Introduction.
(ii) National family welfare programme.

(iii) Organizing family welfare work.
(iv) Family planning methods.

COMMUNITY HEALTH NURSING

Nutrition Education:

(i) Introduction to nutrition education.
(ii) Nutrition education for material and cold health.
(iii) Nutrition education (method and media)

Health Education:

(i) Introduction
(ii) The Teaching (Learning Proceed)
(iii) Approaches used in health education.
(iv) Planning health education activites.
(v) Community resources for health education.

Communication Skills & Audio –Visual AIDS :

(i) Introduction to communication.
(ii) Communication skill for health work.
(iii) Introduction to Audio-visual aids.
(iv) Selection and utilization of audio-visual aids selecting suitable aids for health work.
(v) Preparation of audio- visual aids for health work basic skill/competencies.

Health Problems and Plans :

(i) Health problems.
(ii) Organization and structure of health services and related welfare services.
(iii) Health planning and programme.

Communicable Diseases:

(i) Inroduction to communicable diseases.
(ii) Immunity and immunization.
(iii) Care and treatment of patients with infection.
(iv) Specific Communicable diseases and infections, symptoms, prevention and control and care in specific communicable diseases and infections.
Malaria, filarial, dengue, typhoid, cholera infections hepatitis, other gastrage intestinal infections-acute waste enteritis, dysenteries small-pox, chicken pox mumps, measles, diphtheria. Trachoma, conjunctivitis, worm infestations hoolworm rouun worn. Threadworm, amoebiasis, rabies, tuberculosis, pertustis.

Mental diseases:

(i) Introduction
(ii) Resources and facilities for prevention and early delection of mental illness, use of family health care services.
(iii) Maternal and child health services.
- *School health services.*
- *Primary health centre facilities.*
- *Community, health worker as a resource.*

(iv) *Preventation of mental illness.*
(v) *Early direction of mental disorders.*
(vi) *Mental diseases.*

COMMUNITY HEALTH NURSING I (II)

Environmental sanitation:

- *Basic sanitation needs all village level towns and sen:- Urban areas.*
- *Disinfection and disinfectants, sterilization, antiseptics, disinfectants acodorant, etergent, sterilization.*
- *Environmental sanitation aspects of communicable diseases communicable diseases control.*
- *Venereal diseases.*

Microbiology:

- *Introduction*
  Classification of micro-organisms, characteristic, of bacteria, viruses, conditions affecting and growth of bacteria, parasites, fungi yeasts and mold.
- *Universal presence of Micro-organisms useful bacteria and micro-organism in the environment. Micro-organism in the human body normal flora, Micro-organism in water food and mild.*
- *Sources and mode of infection.*
  Sources of infection, mode of transmission infectin-factors which favour and hinder infection immunity, vicunas.
- *Pathogenic Micro-organism.*
  Transmitted from, respiratory tract. Alimentary tract, food, food poisoning blood-borne pathogenic organism.
- *Collection of speciments for bacteriological examination.*

Sociology:

(i) *Introduction.*
Group-primary and secondary, in group and out groups, structure, activities of groups organization of groups Urban and rural administrative pattern pattern panchyats and corporations, crowd public and audience.
(ii) *Social process.*
(iii) *Social controls.*
(iv) *Social stratifaction.*
(v) *Marriage and family.*
(vi) *Community rural and urban community.*

Psycholoogy:

(i) *Factors influencing human behavior.*
(ii) *Life stages and behavioral patterns.*
(iii) *Emotions and behavior.*
(iv) *Defence mechanism and behavior.*
(v) *Social behavior and interpersonal relations.*
(vi) *Learning, motivation and change in behavior.*

Hygiene:

(i) *Introduction to hygiene and healthful living, consents of health and disease. Factors influencing health and healthful living. Health habits and practice. Scientific principles related to maintenance of normal circulation, respiration, digestion sensory functions, normal skeletal alignment joint function and motor function.*

(ii) *Physical health:- Skin care, cleanliness clothing care of the hair, prevention of prediculosis. Dental care and oral hygiene, care of hands, hygiene of elimination and menstrual hygiene, mental hygiene.*

(iii) *Mental hygiene and health in childhood ensuring mentally healthy growth in later childhood, need for friendship, games and plays, affection and recognition. Mental hygiene, approach to some problems speed problems, reading difficulties, learning problems, day dreaming.*

(iv) *Mental hygiene and health in adolescence. Preparation of girls for menstruation, sex-education.*

(v) *Mental hygiene and health in adulthood. Ensuring mental health in adulthood satisfaction on the job, marriage, marital life, parental responsibilities.*

(vi) *Mental hygiene and health in old age ensuring health in old age and need for preparation for retirement.*

(vii) *Physical health, feature, exercise, rest relazation and sleep care of the fact, foot wear, care of eyes, ear more and throat food values.*

(viii) *Periodic Health Examination.*
Health records, delection and correction of defects. Preventation and early treatments of common ailments, common could, indigestion constipation, headache.

(ix) *Health in home.*
C) *Disposal of refuse, waste.*
D) *Latrines and sanitation, ventilation.*
E) *Safety in the home.*
F) *Sanitation in animal sheds.*

(x) *Mental hygience and health.*
In adults, in-infancy and early childhood. Like, feeding weaving, thumbsucking, toilet-training, need for security, affection, love, adventure.

Nutrition:

(i) *Introduction to the study of nutrition, definition, relation of nutrition of health classification and functions of food-body building, energy yielding and protective foods*

Nutrients- Carbohydrates, protein, fats, Eatmine.
Mineral- functions, sources and daily requirements of each caloric requirements, water and cellulose.

(ii) *Nutritive valve of foodstuffs*

Cereals	*Fruits*	*Fats and oils*
Pluses	*Milk and Milk products*	*Sugars condiments*
Vegetables	*Egg, meat and Fish*	*Spices and beverages*

(iii) *The balance diet.*
a. *Definition, factors to be considered in planning meals, improvement of diars, selection of foods, cultural factors improving maternal nutrition and child nutrition.*
b. *Modified diets- liquid bland, soft, full.*

(iv) *Preparation and preservation of foods general. General principles of cooking.*
a. *Methods of cooking.*
b. *Effects of cooking on nutrients and common foodstuffs, preservations of food– house-hold methods.*

c. Food hygiene simple household measures.

v) Malnutrition.

Malnutrition and ;under nutrition.

Deficiency diseases in the country.

Cultural factors in nutrition, food fats, food habits, food adulteration practive injurious to health.

Nutrition education-principles of imparting nutrition knowledge.

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Annexure "14"

Sub: Syllabus for written test (Objective Type) for the Posts of
DENTAL ASSISTANT / JUNIOR DENTAL TECHNICIAN

Max time:-150
Time:-2.30 Hours

General Human Biology & Disease:- **20 Marks**

1. Elementary Physics and Chemistry.
2. Characteristics of living matter.
3. The Structure of living matter.
4. The Tissues
5. Systems and various parts of human body.
6. Development and types of Bones.
7. Bones of Head & trunk.
8. Bones of the Limb.
9. Joints and Articulations
10. Structure and Action of muscles
11. The Chief Muscles of the Body
12. The Blood
13. The heart and Blood Vessels
14. The Circulatory system
15. The Respiratory System
16. The Digestive System
17. The Liver , Billary system and --------

18. Nutrition and Metabolism
19. Endocrine Glands and Exec-------
20. The Urinary System
21. The Nervous system.
22. The Ear.
23. The Eye
24. The Skin
25. The Reproductive System etc.

Dental Anatomy & Physiology Pharmacology, **Pathology including Microbiology.**

General & Dental Anatomy. **15 Marks**

- Elementary Knowledge of the jaws and teeth, Important between deciduous and permanent teeth. Chronology of eruption , elementary

  knowledge of occlusion of teeth. Relationship of teeth with investing tissues, muscles of mastication facial expressions and elementary knowledge of temporary mandibular joints.

General & Dental Physiology and Histology. **15 Marks**

- Elementary knowledge of the structure and function of various dental and oral tissues e.g. gingival, peridontial membrance, alveollan process, cementum, enamel,dentine, mucous-membrance , pulp.
- Salivary glands and functions of saliya, mastication.

General and Dental Pharmacology. **05 Marks**

- The rapeutics ofn drugs commonly used in denisity and their effects. Practical diagnosiss, dispensing of drugs.

Dental Radiology **05 Marks**

- Technical aspect of Dental Radiograph i.e. the taking processing and mounting of Dental Radiographs , Radiation Hazards and protection against radiation.

GENERAL DENTISTRY INCLUDING ORAL SURGERY.

40 Marks

Chairside Assistants.

1. Reception of Patient.
2. Lay –out of reception room and Dental Surgery and Hygienist Clinic.
3. Chairside Assistance and Techniques
4. Local anesthesia and equipment.
5. Methods of Sterilization and care of Dental Instruments.
6. Basic principles in surgery.
7. The use of instruments in Dental practice.
8. Examination of Oral Cavity and Charting of teeth etc.
9. Instructions to patients and recalls.
10. 10.Maintenance of Dental Unit/Instrument.

PROSTHODONTICS WITH COSMETOLOGY. **15 Marks**

1. Introduction and applied anatomy.
2. History taking and Examination.

3. Simple surgical preparation, impression taking.
4. Selection of patient.
5. Phonetics and anatomical articulation.
6. Clasp retained partial denture-plan , treatment, design and management.
7. Partially edentulous arches.
8. Cennectors- major and minor and functions.
9. Retainers direct and indirect.
10. 10.Dentures functions, biomechancis, Survery, diagnosis, planning ,

partial and temporary relining, resilient lining , aids to retention and relief.

11. Cosmetology and appearance.
12. Dental Materials and its manipulation.

ORTHODONTICS:- **10 Marks**

1. Etiology, Classification and malocclusion.
2. Skeletal maturation, growth, dentition with special reference to endocrines.
3. Classification of dentofacial abnormalties , anthropometrics, cephalometrics.
4. Examination of patient, differential diagnosis and treatment planning .
5. Principle of mechanotherapy

6. Basics about tweed method, twin wire appliance, activators , plates appliances including tissue reaction and evaluation of treatment.

GENERAL HYGIENE, NUTRITION, COMMUNITY WELFARE, CONSERVATIVE & PREVENTIVE DENTISTRY.

DENTAL HYGIENE AND ORAL PROPHLAXIS **15 Marks**

1. Definition of Hygiene.
2. Objective of Dental Hygiene.
3. Oral prohlyaxis-various methods.
4. Stains on teeth-and their management.
5. Dental Plague, Dental calculus.
6. Brief description and the role of oral Prophylaxis in Gingivtis, Peridontitis etc.

CLINICALS:-

1. Instruments, technique of Oral Prophylaxix.
2. Polishing of teeth.
3. Topical application of fluorides.
4. Care of Oral Cavity and appliances during treatment of Maxillo-facial cases.

CONSERVATIVE & PREVENTIVE SURGERY. **10 Marks**

1. Dental Caries-Prevalence and Prevention.
2. Peridontial Diseases, saliva in relation to Dental Health and diseases.

3. Dental Health &Diseases.

Dietary habits and dental Health , Maiocclusion , Oral Cancer.

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Annexure "15"

"DRAFTSMAN (CIVIL)"

SYLLABUS FOR WRITTEN TEST

Marks :-150
Time :- 2.30 Hours

INTRODUCTION- 30 marks

- Drawing is a language of technicians. Drawing office organization. Drawing instruments, equipments materials their use, care & maintenance, safety precautions. Introduction to BIS code of practice and Architectural drawings.
- Importance of lettering, printing of letters and figures sizes, proportion etc. as per BIS code.
- Forms and proportions for single stroke lettering, Lettering stencils.
- Geometrical drawing. Definitions, construction of plain geometrical figures. Orthographic projection, dihedral angles and recommended methods of projection according to B.I.S codes.
- Principles, representation and construction of different types of scales, graphic scales, recommended scales for drawing with reference to BIS codes.
- Dimensioning technique, order of finishing, technical, Sketching, technique of sketching model drawing, orthographic sketching etc.
- Conventional signs and symbols as per B.I. S. Bricks characteristics of good bricks, hollow bricks and manufacture of bricks.
- Tiles, terracotta, stone ware and earthen ware, sand types, characteristics, cement, lime.

INTRODUCTION- 40 marks

- Sequence of construction of a building. Names of different parts of building. Bricks masonaary- principles of construction of bonds. Tools and equipment used. Scaffolding.
- Stone masonary, terms used, principles of construction, classification, composite masonary and strength of walls. Timber: Structure- Indian timber uses.

- **Foundation:** Purpose, causes of failure of foundation, bearing capacity of soils, dead and live loads, examination of ground. Types of foundation. Drawing of footing foundation, setting out of building on ground excavation, shorting & simple machine foundations.

- Dampness in building and damp proof course. Method of prevention of dampness in building. Mortar-types, proportion & mixing. Plastering & pointing. White washing & distempering.

- Types of ground floor and methods of constructing granolithic, mosaic, brick tiles etc. floors.

- **Arches**-technical terms forms –brick and stone centering lintel. Market forms and sizes.

- Carpentry joints-terms, Classification of joints.

- **Door**- parts of door, location, sizes, and types.

- Windows and ventilators including steel window and ventilators fixtures and fastenings used in doors. Window and ventilators.

- **Roof**-Pitched roof types, roof covering, component parts of roof. Theory of trussing king and queen post trusses.

- Classification and construction of upper floors including waterproofing, general Principles of construction of masonry & R. C.C

- **Stairs:** Terms, forms, materials planning and designing of Stairs. Details of construction.

- Residential building. Principles of planning. Orientation-local building by law as including BIS code, type of residential building rooms, services, utilities which constitute as dwelling house. Estimating.

- Method and find out quantities for a single storied residential building.

- Perspective view types. Method of construction, technique of colouring and shading.

- Inking & tracing, operating of Leroy set & care of its accessories. Method of preparing Blue prints or Ammonia Prints, Folding of prints.

- Safety precaution & elementary first aid, forge and fuel. Lighting fire Common had tools-their description and use. Description of plumbing operations.

- Safety precautions & elementary firs aid- carpenter's hand tools, their names, description and use. Common joints. Use of nails, screws hinges, dowels etc. preparation of glue & putty, Grinding & sharpening of tools. Their care & maintenance. Use of different types of joints. Properties and uses of different timbers used in construction work.

- Safety precautions and elementary first aid. Artificial respiration and treatment of electrical Shock. Elementary electricity. General idea of supply system. Wireman's tool kits. Wiring materials. Electric fittings. System of wiring . wiring installation for domestic lighting.

Safety precautions:- 30 marks

- Tools their description , uses and their care.

- Details of different bonding wall and section according to BIS
- **Introduction:-** Chain surveying principles, Instruments employed, use, care & maintenance. Field problems. Field book plotting. Introduction to plane table survey, Instruments employed, use, care & maintenance. Prismatic compass. Planimeter and pentagraph.

- Instruments and accessories- their uses and description level book. Differential leveling. Application of chain and leveling to building construction. Plotting, preparation of contour computing earth work by spot level and contours. Setting out work.

- **Road:-** Introduction to roads, general principles of alignment . classification and construction of different types of roads.

- Indian railways-their gauges, construction of permanent ways . Different ail sections. Use of stone balst in railways track. Use and types of slippers , types of signals, fixtures & fastening in Railway Tracks including base plates and fishplates.

- **Bridges:-** Introduction to bridges , component parts of a bridge. Classification of culverts (I.R.C.)

- Bridges– types, location of bridge. Tunnels rules used for the sizes of different members.

Introduction of Water Resources Engineering. 25 marks

- Definition of terms used in irrigation.

- Hydrology like duty delta, intensity of irrigation, Hydrograpg, peak flow, runs off, catchments area CCA, corps like, Rabi, Kharif etc.

- Storage/ diversion head works definitions:
- Types of Dam –Masonry, concrete & composite Dams
- Gravity Dam, Arch and Buttress Dams, Earth and Rock fill dams.
    a. **Reservoir**- types of Reservoirs viz. single purpose and multi-purpose, area/ capacity curves of Reservoir.

b. **Canals-** Canals, classification of canals and distribution system, canal structures viz. Head Regulators, Cross Regulators, Canal outlet, Escape etc, Drawing of canal alignment including longitudinal and cross sections of canals with the given data. Type of cross drainage Works viz. Aqueducts. Super passage, level crossing, Irrigation , culvert- Inlets and Outlets, General Description , Element of water power development and various civil engineering structure of Hydro Electric Schemes, i. e., fore bay. Penstock, Turbines, Power House etc.

- Introduction–terms used in public health engineering system of sanitation-house plumbing, sanitary fitting etc. Types of supply system and purification of water.

- Introduction to RCC uses, materials proportions and form work, including bending of bars and construction reference to BIS code Reinforced brickwork. Materials used for RCC, construction selection of materials course aggregate, fine aggregate cement – water, reinforcement, characteristics. Method of Mixing concrete- hand and machine, slump test.

- Forms of rivets , proportions. Types of riverted joints.

- Design of Riveted connection, failure of riveted joints.

Building Estimating. 25 marks

- Types of estimate, standard method of taking out quantity, labour & material detailed & abstract estimate. Analysis of rates for simple items of work. Schedule of rates, specifications.

- Residential building, Planning of building, local by –laws including BIS code Types of residential building rooms , service utilities which constitute a dwelling house. Building by –laws of State urban Development authorities , Improvement trust etc.

  - What is a Computer-
    General terms used in computer
  - Elementary DOS commands.
  - Window command and their uses
  - Auto CAD commands and use of different Icons of Auto CAD
  - Knowledge about different co ordinate systems
  - Knowledge about 3d Drafting
  - Knowledge about Architectural Desk top and creating modeling.

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ANNEXURE "16"

Max time:-150
Time:-2.30 Hours

SYLLABUS FOR THE POST OF ELECTION ASSISTANT (JR SCALE) / ELECTION ASSISTANT

Note:

1. *Part "I" will comprise of* ***Multiple Choice Objective Type Questions****, each carrying* ***one (01) mark. Part "II" (Urdu portion) will be of descriptive nature.***
2. *Both the parts viz Part "I" and part "II" will be compulsory*
3. *For qualifying the written test, It is compulsory for an OM candidate to secure minimum 40% marks and for the candidates belonging to various reserved categories, 35% marks.*

Part I

General English *30 Marks*

7. Tenses
Rearranging of jumbled sentences.
(III) Narration
(IV) Models
Articles
(VI) Comprehension with blanks to be filled in with
Phrases, Pronouns, Homonyms / homophones.
(VII) Clauses
(VIII) Synonyms and antonyms
(IX) Pairs of words and their use in meaningful sentences.
C) Idioms and phrases.
(XI) Uses of Prepositions.

General Knowledge

a) GENERAL KNOWLEDGE AND CURRENT AFFAIRS 30 Marks

Important dates in Indian History / Freedom struggle, different dates and events.

(II) First in world (Adventure, Sports, Discoveries).
First in India (Adventure, Sports, Discoveries).
Popular names of Personalities (Religion, Politics, Scientific discoveries, Geographical,
Sports, History)

(IV) The Newspaper world – (Current Dailies & Weeklies of India).
(V) Books & Authors – General
(VI) Languages.
(VII) Capitals & Currencies.
(VIII) United Nations Organisations – Veto Powers
No. of Countries as its Members.
Principal organs and their functions.
(IX) SAARC, ASEAN.
Everyday Science
(XI) World famous Awards (1. in Science)
(2. in Literature)
(3. in Sports)
(XII) National Awards - (1. in Science)
(2. in Literature)
(3. in Sports)
(XIII) The world of Sports.
(XIV) Climate & Crops in India.
(XV) Democratic institutions.
(XVI) Forms of Government.
(XVII) Political & Physical divisiions of world & India.
(XVIII) Important rivers & Lakes in India.
(XIX) Current Events of Natioal and International Level.
(XX) Role of Mathematics in Economics.
(XXI) Agriculture in economic development; Industrialization and economic development.
(XXII) Indian Foreign Trade
(XXIII) New economic reforms and growth of foreign trade.
(XXIV) Inflation – Concept and types; Causes and consequences

b) GENERAL KNOWLEDGE WITH SPECIAL REFERENCE TO J&K 15 Marks

Abbrevations, Important dates, popular names of personalities and their achievements/ Contribution (National and International).
Constitution of J&K – Formation, Fundamental rights, Directive Principles.
Weather, Climate, Crops, Means of Transport.
(IV) Important power projects and their impact on State Economy.
Rivers and Lakes.
(VI) Important Tourist Destinations.
(VII) History of J&K State.
(VIII) Historical places of the State and their importance.
(IX) RTI Act.

Indus Water Treaty and its impact on State economy.

c) *Knowledge of Computer Application* — *15 Marks*

Fundamentals of computer sciences
Hardware & Software
(iv) Input and output devices
(IV) Operating system
M.S Word,M.S Excel, M.S Acess and Powerpoint, Presentation, PDF
(VI) E_mail & Internet, Printing, Scanning

Part II

رول نمبرانگریزی میں لکھیں۔۔۔۔۔۔۔۔۔۔۔۔۔۔ امیدوارکانام انگریزی میں۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔۔

وقت:60منٹ نشانات: 60

1۔مندرجہ ذیل ھدایات کوتوجہ سے مطالعہ کریں۔

2۔آپ کارول نمبراورنام جلی حروف میں لکھیں۔

3۔اس ادارہ کے ناظم ونگران کے بتائے ہوئے اوراس کتاب چہ پردرج ھدایات پرعمل لازم ہے۔

4۔اپنے پاس کسی قسم کے اوراق وکتابیں اورموبائیل وغیرہ کاامتحان گاہ میں لاناسخت منع ہے۔اگرکسی کے پاس یہ چیزیں دست یاب ہوئیں یاانکااستعمال کرتے ہوئے دیکھا گیایانقل کرتے ہوئے دیکھا گیایاکسی کے بدلہ امتحان گاہ میں کوئی اورآگیایاکسی نے کوئی غیرمہذب طریقہ اپنایاتوان تمام صورتوں میں اس امیدوارکوفورانااھل قراردیتے ہوئے اسپرسخت کاروائی کی جائیگی۔

5۔بعدامتحان سوالی وجوابی پرچہ کمرہ کے نگران کے حوالے کرنالازم ہوگا۔سوالی پرچہ یااس کاکوئی حصہ کسی صورت میں باہرلیجاناسخت منع ہے۔اس طرح کاعمل مجرمانہ عمل قراردیاجائے گا۔

6۔سارے سوالات لازم ہیں۔غلط جواب پہ کوئی منفی نشان نہیں لگائے جائیں گے۔

7۔اگرآپ نے اپنے سوالی پرچہ میں کوئی سوال ناپایاتوفورانگران کمرہ کومطلع فرمائیں۔

8-اس کتاب چہ میں کل آٹھ سوالات ہیں جن میں ایک سوال مضمون نگاری پرمشتمل ہے۔

9۔اس کتاب چہ میں حسب ذیل عنوانات پرسولات ہیں۔

عنوانات	نشانات
بعدمطالعہ اقتباس اورصحیح جوابات	15
اردومحاوارات اورانکاجملوں میں استعمال	05
اردوالفاظ کی واحدجمع اورانکاجملوں میں استعمال	05
تذکیروتانیث اورانکاجملوں میں استعمال	04
غلط جملوں کی تصحیح	04
اردو کے قواعد	12
اضداداورہم معنی الفاظ	05
رپورٹ	10

10 ۔اس تحریری مقابلہ میں منتخب ہونے والے امیدواروں کیلئے لازمی ہے کہ وہ 40% فیصدنشانات حاصل کریں اوردوسرے طبقات سے تعلق رکھنے والے امیدواروں کو 35% فیصدنشانات لیناضروری ہے۔

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ANNEXURE "17"

Marks:-150
Time:-2:30 Hours

Syllabus for Written test (Objective Type) for the post of

Etcher Artist

Plate Making	**50 Marks**
Offset Plate making equipment, material and accessories.	**30 Marks**
Introduction of Offset Plate Process	**50 Marks**
Substrates for offset plates merits, limitations And suitability	**20 Marks**

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Annexure "18"

Syllabus for Written test (Objective Type) for the post of JUNIOR STATISTICAL ASSISTANT (JSA)

Marks :-150
Time :- 2.30 Hours

General Knowledge And Current Affairs 20 Marks

- Important dates in Indian History / Freedom struggle, different dates and events.
- First in world (Adventure, Sports, Discoveries).
  First in India (Adventure, Sports, Discoveries).
- Popular names of Personalities (Religion, Politics, Scientific discoveries, Geographical,
  Sports, History)
- The Newspaper world – (Current Dailies & Weeklies of India).
- Books & Authors – General
- Languages.
- Capitals & Currencies.
- United Nations Organisations – Veto Powers
  No. of Countries as its Members.
  Principal organs and their functions.
- SAARC, ASEAN.
- Everyday Science
- World famous Awards - (1. in Science)
  (2. in Literature)
  (3. in Sports)
- National Awards - (1. in Science)
  (2. in Literature)
  (3. in Sports)
- The world of Sports
- Climate & Crops in India.
- Democratic institutions
- Forms of Government
- Political & Physical divisiions of world & India
- Important rivers & Lakes in India.
- Current Events of Natioal and International Level.
- Role of Mathematics in Economics.

- Agriculture in economic development; Industrialization and economic development.
- Indian Foreign Trade
- New economic reforms and growth of foreign trade.
- Inflation – Concept and types; Causes and consequences

GENERAL KNOWLEDGE WITH SPECIAL REFERENCE TO J&K 10 Marks

(I) Abbrevations, Important dates, popular names of personalities and their achievements/Contribution (National and International).
(II) Constitution of J&K – Formation, Fundamental rights, Directive Principles.
(III) Weather, Climate, Crops, Means of Transport.
(IV) Important power projects and their impact on State Economy.
(V) Rivers and Lakes.
(VI) Important Tourist Destinations.
(VII) History of J&K State.
(VIII) Historical places of the State and their importance.
(IX) RTI Act.
(X) Indus Water Treaty and its impact on State economy.

Statistical Methods 20 Marks

- Primary and secondary data.
- Methods of collecting primary data and
- Preparation of questionaires-
- Tabulation and compilation of Data
- Measures of central Tendency
- Theory of Probability
- Correlation and regression- Concept and simple applications.
- Theory of Attributes- Basic concepts and their applications,

.

Applied Statistics 20 Marks

- Sampling Techniques- Simple Radom Sampling (with and without replacement),
  Stratified Sampling,
- Sampling and Non- Sampling errors
- Analysis of Time Series components,
- Theory of Index Numbers: Tests of Index numbers- Wholesale and consumer price Index numbers.
- Demography-Census, its features and functions.
- Vital Statistics- Measures of fertility ,Crude fertility rates, specific fertility rates, gross and net reproduction rates., Measures of Mortality

General Economics 30 Marks

- Meaning, Scope and Methodology,
- Theory of consumers demand using indifference curve technique.
- Demand Analysis
- Factor Pricing –Marginal productivity Theory & Ricardian Theory of Rent

- Pricing under various forms of Market.
- Factors of production::factors of production & laws of Production..
- Concept of Economic Growth and its measurement
- Characteristics and problems of developing economy
- Rationale of Planning in Developing Countries.
- Objectives & Strategies of Indian Planning.
- Five Year Plan
- Fiscal and Monetary Policy.
- Inflation & Deflation.
- Concepts of National Income.

Knpwledge of Computer Applications 10 Marks

- Fundamentals of computer sciences,
- Hardware & Software, Concept of Open Source Technologies
- Input & Output Devices,
- Flow Charts and Algorithms
- Operating System:- MS Word, MS Excel, MS Access, MS Power-Pont ,PDF
- Internet &E-mail
- Concept of Computer Virus & latest Anti-Virus.
- Terms and Abbreviations used in IT

Principles of Business Management 20 Marks

- Nature Scope and Significance of Management
- The process of Management
- Process of Control: Production Planning & Control, Quality Control, Inventory Control, Budgetary Control and Cost Control. PERT, CPM and GNATT Charts.
- Personnel Management : Definition, meaning and Scope, Performance appraisal, Evaluation and Monitoring, Human Resource Planning.
- Marketing Management : Definition, Meaning and Scope, Marketing Environment in India, Consumer Behavior, Marketing Strategies, Challenges of Marketing In India, Social Responsibilities & Marketing Ethics.
- Financial Management : Definition, meaning and Scope, , Financial Statement Analysis:, Income & Expenditure Statement, Profit & Loss Account, Balance Sheet, Ratio Analysis, Working Capital Analysis
- Taxation – Meaning, Classification an Principles of taxation.
- Public Finance: Nature Scope and Importance of Public Finance.
- Registration of Companies- Memorandum of Associations, Articles of Associations, Mergers, Acquisition, Diversification, Expansion.
- Zero Based Budgeting & Performance Budgeting.
- Indian Financial System.

Mathematics 20 Marks

- Set Theory - Basic Concepts & Applications.
- Matrices & Determinants, Simultaneous Linear Equations- Cramer's Rule.

- Analytical Geometry.
- Differentiation- Basic Concepts (Addition, Product & Chain rule)
- Integration-Reduction & Substitution Method.
- Differential Equations.
- Interpolation & Extrapolation.

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ANNEXURE "19"

Marks:150
Time:-2.30 hours

Syllabus for written test (Objective Type) for the posts of Sr.Grade Nurse

Anatomy Marks 10

- **Introduction to Anatomical terms organization of the human body**
- **The Skeletal System**
- **The Muscular System**
- **The Nervous system**
- **The sensory organs**
- **Circulatory and lymphatic system**
- **The Respiratory System**
- **The Digestive System**
- **The Excretory System(Urinary)**
- **The Endocrine system**
- **The Reproductive System including breast**

Physiology Marks 10

Cell Physiology

- **Skeletal System**
- **Muscular System**
- **Nervous Systems**
- **Circulatory system**
- **Respiratory system**
- **The Digestive system**
- **The excretory system**
- **The sensory organs**
- **The endocrine system**
- **The reproductive system**
- **Lymphatic and immunological system**

Nutrition Marks 05

- **Introduction**
- **Carbohydrates**
- **Fats**

- **Proteins**
- **Energy**
- **Vitamins**
- **Minerals**
- **Water electrolytes**
- **Cookery rules and preservation of nutrients**
- **Balanced diet**
- **Role of nurse in nutritional programmes**

Biochemistry Marks 05

- **Introduction**
- **Structure and functions of cell membrane**
- **Composition and metabolism of carbohydrates**
- **Composition and metabolism of lipids**
- **Composition and metabolism of Amino acids and proteins**
- **Composition of Vitamins and minerals**
- **Immunochemistry**

Nursing Foundation Marks 20

- **Introduction**
- **Nursing as profession**
- **Hospital admission and discharge**
- **Communication and Nurse patient relationship**
- **The Nursing Process**
- **Documentation and Reporting**
- **Vital signs**
- **Health Assessment**
- **Machinery Equipment an linen**
- **Meeting needs of patients**
- **Infection control in Clinical setting**
- **Administration of Medications**
- **Meeting special needs of the patient**

Psychology Marks 05

- **Introduction**
- **Biology of behavior**
- **Cognitive process**
- **Motivation and emotional processes**
- **Personality**
- **Developmental Psychology**
- **Metal hygiene and mental Health**
- **Psychological assessment tests**

Microbiology Marks 05

- **Introduction**
- **General characteristics of Microbes Infection control**
- **Pathogenic organisms Immunity**

Sociology Marks 05

- **Introduction**
- **Individual**
- **Culture**
- **Social groups and processes**
- **Population**

- **Family and Marriage**
- **Social Stratification**
- **Types of communities in India Rual, Urban, and Regional)**
- **Social Change**
- **Social Organization**
- **Social control**
- **Social Problems**

Pharmacology Marks 05

- **Introduction to pharmacology**
- **Chemotherapy**
- **Pharmacology of commonly used antiseptics, disinfectants and insecticides**
- **Drugs action on G.I. system**
- **Drugs used on Respiratory systems**
- **Drugs used on urinary system**
- **Miscellaneous**
- **Drugs used on skin and mucous membranes**
- **Drugs action on Nervous system**
- **Cardiovascular drugs**
- **Drugs used for hormonal disorders and supplementation, contraception and medical termination of pregnancy**
- **Introduction to Drugs used in alternative system of medicine**

Pathology Marks $2_{1/2}$

- **Bronchial asthma**
- **Cardio-vascular system**
- **Gastro intestinal Tract**
- **Liver Gall bladder pancreas**
- **Kidney urinary tract**
- **Male genital system**
- **Female genital system**
- **Cancer Breast**
- **Central Nervous system**
- **Metastatic turnour**
- **Skeletal system**
- **Clinical Pathology**
- **Examination of body cavity fluids, tranudates and exudates**
- **Urine and faces**

Genetics Marks $2_{1/2}$

- **Introduction**
- **Maternal prenatal and genetic influences on development of defects and diseases**
- **Genetic testing in the neonates and children**
- **Genetic conditions of adolescents and adults**
- **Services related to Genetics**

Medical Surgical Nursing (ADULT INCLUDING Geriatrics)-I Marks 10

- **Introduction**
- **Common signs and symptoms and management**
- **Nursing management of patients (adults including elderly) with respiratory problems**

- **Nursing management of patient adults including elderly) with blood and cardio vascular problem**
- **Heart**
- **Nursing management of patient adults including elderly with genitor- urinary problems**
- **Nursing management of disorders of male(adults including elderly) reproductive system**
- **Nursing management of patient(adults including elderly) with disorders of endocrine system**
- **Nursing management of patient (adults including elderly) with disorder of integumentary system**
- **Nursing management of patient adults including elderly) with musculoskeletal problems**
- **Nursing management of patient adults including elderly with immunological problems**
- **Nursing management of patient adults including elderly) with communicable Diseases**
- **Peri operative nursing**

Community Health Nursing-I Marks 05

- **Introduction**
- **Determinates of health**
- **Epidemiology**
- **Epidemiology and nursing management of common Communicable**
- **Diseases**
- **Viral**
- **Bacterial**
- **Rickettsial diseases**
- **Parasitic zoonoses**
- **Surface infection**
- **Epidemiology and Nursing management of Non-Communicable diseases**
- **Demography**
- **Population and its control**

Communication Educational Technology Marks 05

- **Review Communication process**
- **Interpersonal Relations**
- **Human relations**
- **Guidance counseling**
- **Education media**
- **Assessment**
- **Information, Education communication for health (IEC)**

Medical surgical Nursing Adult including Geriatrics)-II Marks 10

- **Nursing management of patient with disorders of Ear Nose and Throat**
- **Nursing management of patient with disorders of eye**
- **Nursing management of patient with neurological disorders**
- **Nursing management of patients with disorders of female reproductive system**
- **Nursing management of patients with Burns, reconstructive and cosmetic surgery**
- **Nursing Management of patient with ontological conditions**
- **Nursing management of patients in Emergency Disaster situations**
- **Nursing care of the elderly**
- **Nursing management of patient in critical care units**

- **Nursing management of patients adults including elderly with occupational and Industrial disorders**

Child Health Nursing Marks 10

- **Introduction**
- **Modern concepts of childcare**
- **The healthy child**
- **Nursing care of neonate**
- **Integrated management of neonatal and childhood illnesses (IMNCI)**
- **Nursing management in common childhood diseases**
- **Management of behavioral social problems in children**

Metal Health Nursing Marks 10

- **Introduction**
- **Principles and concepts of Mental Health Nursing**
- **Assessment of Metal health**
- **Status**
- **Therapeutic communication and nurse –patient relationship**
- **Assessment of mental health status**
- **Therapeutic communication and nurse-patient relationship**
- **Treatment modalities and therapies used in mental disorders.**
- **Nursing management of patient with Schizophrenia, and other**
- **psychotic disorders**
- **Nursing management of patient with mood disorders.**
- **Nursing management of patient with neurotic, stress related and somatiozation disorders**
- **Nursing management of patient with Substance use disorders**
- **Nursing management of patient with personality, Sexual and eating disorders**
- **.Nursing management of childhood and adolescent disorders including mental deficiency**
- **Nursing management of organic brain disorders**
- **Psychiatric emergencies and crisis intervention**
- **Legal issues in Mental Health Nursing**
- **Community Mental Health Nursing**

Midwifery and obstetrical Nursing Marks 10

- **Introduction to midwifery and obstertrical Nursing**
- **Review of anatomy and physiology of female reproductive system and foetal development**
- **Assessment and management of pregnancy (ante-natal)**
- **Assessment and management of intra-natal period**
  - **Second stage**
  - **Third stage**
  - **Fourth Stage**
  - **Assessment and management of women during post natal period**
  - **Assessment and management of normal neonates**
  - **High-risk pregnancies-assessment management**
  - **Abnormal labour assessment and management**
  - **Abnormalities during postanatal periods**
  - **Assessment and management of High risk newborn**
  - **Pharmaco-therapeutics in obstetrics**

Community Health Nursing-II Marks 05

- **Introduction**
- **Health planning and policies and problems**

- **Community health nursing approaches, concepts and roles and responsibilities of nursing personnel**
- **Assisting individuals and groups to promote and maintain their health**
- **Assessment of self and family**
- **Seek health services for**
- **Maintenance of Health Records for self and family**
- **Continue Medical care and follow up in community for various diseases and disorders**

Nursing research and statistics

Marks 05

- **Research and research process**
- **Research problem/ Question**
- **Review of literature**
- **Research approaches and designs**
- **Sampling and data collection**
- **Analysis of data:**
- **Introduction to statistics**
- **Communication and utilization of research**

Management of Nursing Services and Education Marks 05

- **Introduction Management Process**
- **Management of nursing services in the hospital and community Organizational behavior and human relations**
- **In Service education**
- **Management of nursing educational institutions Nursing as profession**
- **Professional Advancement:**

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Annexure "20"

Syllabus for Written test (Objective Type) for the posts of
SUPERVISOR
(in Social Welfare Deptt.)

Marks:150
Time:-2:30 hours

Unit 1
1. Society, Community, Association.
2. Social Stratification: Caste, Class and Social Stratification in India.
3. Social Institutions: Norms, Values, Folkways and Mores
4. Marriage, Kinship and Family

(15 Marks)

Unit 2
1. Gender inequality and Issues.
2. Stages and Theories of Human Development (Freud, Erikson,)
3. Socialization and its Theories
4. Anxiety Disorders: Phobia, OCD, GAD, Panic Disorder, PTSD

(15 Marks)

Unit 3
1. Theories of Economic Development
2. Indicators of Social Development
3. Population Growth Issues and Challenges
4. Rural Development Programmes (1990 onwards)

(15 Marks)

Unit 4
1. United Nations Organization: Structure and function
2. Non Alignment Movement and its Genesis
3. Fundamental rights, Fundamental duties and Directive principle of State Policy
4. Democracy, Liberty, Equality and Justice (15 Marks)

Unit 5
1. Panchayati Raj System
2. Social Networking and its Impact
3. Basic Computer Applications (Elementary knowledge)
4. Macdonalisation and its effect (15 Marks)

Unit 6
1. Concept of social work: Philanthropy and Charity
2. Social work and its Relation with other Disciplines
3. Socil Religious Movements (15 Marks)

Unit 7
1. Hindu Reform Movement
2. Land Reform Movement in Kashmir
3. Major Peasant and Tribal Movements
4. Spread of Modern Education. (15 Marks)

Unit 8
1. Human rights: Concept and Evolution
2. Universal Declaration of Human rights
3. Women Rights
4. Child Rights (15 Marks)

Unit 9
1. Poverty and Unemployment
2. Population Explosion, Global Warming and Climate Change
3. Drug Addiction ,Child Abuse, Delinquency
4. Trafficking, Beggary, Corruption. (15Marks)

Unit 10
1. Female foeticide and infanticide
2. Child and Women Welfare Schemes
3. Old age and Disability Schemes.
4. Health and Family Welfare Programmes (15 Marks)

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Annexure "21"

Marks:150
Time:-2:30 hours

Syllabus for Written test (Objective Type) for the of posts
Vocational Instructor Mechanic Industrial Electronics

ELECTRONIC DEVICES AND CIRCUITS

(40 Marks)

Semi conductor physics: energy levels, semi conductors, intrinsic and extrinsic semi conductor, minority and majority charge carriers, P and N type semiconductors. Semiconductor diode: PN junction diod, potential barrier, drift and diffusion currents, depletion layer, V-I characteristics, static and dynamic resistance, half-wave, full wave and bridge rectifiers, rectification efficiencies and ripple factor, shunt capacitor filter, series inductor filter, LC and RC filters. Types of diodes, Zener and avalanche breakdown. Bipolar-transistors: PNP and NPN transistors, Current relations in a transistor; concept of leakage current, CB, CE, CC configurations of a transistor. Transistor as an amplifier in CE Configuration, dc load line, current gain and voltage gain. Biasing Circuits. Single stage transistor amplifier, ac load line, current and voltage gain of a single stage amplifier circuit, H-parameters, Field effect Transistors: Construction, operation and characteristics of FETs. MOSFETs: Construction, operation and characteristics of a MOSFET.

Multistage Amplifiers: RC coupled, transformer coupled, direct coupled. Large Signal Amplifier, impedance matching in amplifiers, Class A, Class B, Class AB, and Class C amplifiers, collector efficiency and Distortion in class A,B,C, Push-pull amplifier, Feedback in Amplifiers, Sinusoidal Oscillators positive feedback, Barkhausen criterion for oscillations, oscillator circuits-tuned collector, Hartley, Colpitts, phase shift, Wien's bridge, and crystal oscillator. Tuned Voltage Amplifiers, Wave Shaping Circuits, Multivibrator Circuits: astable, monostable, and bistable, IC555, Operational Amplifiers: voltage gain, CMRR, PSRR, slew rate and input offset current, Operational amplifier as an inverter, scale changer, adder, subtractor, differentiator, and integrator. Schmitt trigger circuit and sample/hold circuit using operational amplifier.

BASIC ELECTRICAL ENGINEERING (10Marks)

DC Circuits: series and parallel combination of resistors, Kirchhoff's current law and Kirchhoff's voltage law, Star – Delta connections and their conversion. DC Circuit Theorems: Thevenin's theorem, Norton's theorem, superposition and maximum power transfer theorems. Voltage and Current Sources, Electro Magnetic Induction: Faraday's laws of electro-magnetic induction, principles of self and mutual induction, self and mutually induced e.m.f, current growth, decay and time constant in an inductive (RL) circuit, Energy stored in an inductor, series and parallel combination of inductors.

Batteries: primary and secondary cells, Construction, working principle of Lead-Acid, Nickel-Cadmium and Silver-Oxide batteries.

AC circuits: alternating quantities**,** cycle, frequency, time period, amplitude, instantaneous value, average value, r.m.s value, maximum value, form factor and peak factor, phasor diagrams. Different types of ac circuits: R, L, C, RL, RC & RLC. Inductive and capacitive reactance, series resonance and parallel resonance, Power factor, active and reactive power.

ELECTRONIC INSTRUMENTS AND MEASUREMENTS (10 Marks)

Measurements: Measurement, method of measurement, types of instruments .Specifications of instruments: Accuracy, precision, sensitivity, resolution, range, errors in measurement, sources of errors, limiting errors, loading effect. Voltage, Current and Resistance Measurement: permanent magnet moving coil (PMMC) instruments, moving iron type instruments, measurement of d.c voltage and current, multimeter. Cathode Ray Oscilloscope: Construction and working of Cathode Ray Tube (CRT), Block diagram, description of a basic CRO and triggered sweep oscilloscope, front panel controls. Measurement of voltage, current, frequency, time period and phase using CRO. CRO probes, Digital storage oscilloscope (DSO). Signal Generators and Analytical Instruments: low frequency and RF generators, pulse generator, function generator, Wave analyzer, distortionmeasurement and spectrum analyser.

Impedance Bridges and Q Meters: Wheat stone bridge, AC bridges: Maxwell's induction bridge, Hay's bridge, De-Sauty's bridge, Schering bridge and Anderson bridge, RLC bridge & Q meter. Digital Instruments: ramp, dual slope and integration type digital voltmeter, digital multimeter, universal counter/frequency counter logic probe, logic pulser, logic analyzer, logic comparator and signature analyzer.

DIGITAL ELECTRONICS AND MICROPROCESSORS (30 Marks)

Digital signal, Number System: Binary, octal and hexadecimal number system, Binary addition, subtraction, multiplication and division. Codes and Parity: code, weighted and non-weighted codes, 8421, BCD, excess-3 and Gray code. Parity, single and double parity and error detection. Alpha numeric codes: ASCII and EBCDIC. Logic Gates and Families: NOT, AND, OR, NAND, NOR, EXOR Gates, NAND and NOR as universal gates. Logic family classification: SSI, MSI, LSI, VLSI. TTL and C-MOS families. Logic Simplification: Boolean algebra, De Morgan's Theorems. Implementation of Boolean (logic) equation with gates, Karnaugh map. Arithmetic circuits:

Half adder, Full adder circuit, Half and Full subtracter circuit and 4 bit adder/subtracter. Encoders,

Decoders, Multiplexeres and De-Multiplexeres, Latches and flip flops, Counters, Shift Registers, A/D and D/A Converters

MICROPROCESSORS**:** Architecture of a Microprocessor (With reference to 8085 microprocessor) : bus organization of 8085, Functional block diagram of 8085 and function of each block, Pin details of 8085. Programming: Instruction format and addressing mode. Data transfer group, Arithmetic Group, Logic Group, Stack, I/O and Machine Control Group. Memories and I/O interfacing: memory mapping, I/O mapped I/O and memory mapped I/O. Instruction Timing and Cycles, Interrupts, Data transfer techniques: sync data transfer, async data transfer (hand shaking), Polling, Interrupt driven data transfer, DMA, Serial output data, Serial input data.

COMMUNICATION ENGINEERING (40 Marks)

Modulation: Amplitude modulation & Demodulation, Frequency Modulation & Demodulation. Pulse Modulation, sampling theorem, time division multiplexing (TDM) and frequency division

multiplexing (FDM), PAM, PWM , PCM. Quantization, quantization error, companding, Delta Modulation.

AM/FM Transmitters & Receivers, Antennas, Electromagnetic spectrum : VLF, LF, MF, HF, VHF, UHF, Microwave. Propagation: Ground wave propagation, Space wave communication, Fibre Optic Communications & Satellite Communications. Digital Modulation Techniques: Amplitude shift keying (ASK), Frequency Shift keying (FSK), Phase shift keying (PSK), Quadrature Phase Shift Keying(QPSK), Spread Spectrum Techniques, Frequency Hopping Technique. UART, USART

Wireless Communication: Electromagnetic waves, Paging system, Cordless Telephone System, Cellular Telephone System. Propagation considerations, Multiple Access Techniques: Frequency Division Multiple Access (FDMA), Time Division Multiple Access (TDMA), Code Division Multiple Access (CDMA), Spread Spectrum Multiple Access (SSMA), Frequency Hopping spread Spectrum (FHSS). Mobile Communication Systems: Advanced Mobile Phone System (AMPS), Global Systems for Mobile Communication (GSM) and its architecture, CDMA System, DTH, Blue tooth, Wi-Fi.

POWER ELECTRONICS (10Marks)

Thyristors: Construction, Working principles of SCR, two transistor analogy of SCR, V-I characteristics of SCR, Different methods of SCR triggering, commutation circuits for SCR. Series & parallel operation of SCR. DIAC, TRIAC, UJT & their V-I characteristics. Gate Turn off thyristor (GTO), Programmable uni-junction transistor (PUT).
Controlled Rectifiers,

Inverters, Choppers, Dual Converters and Cyclo converters.

NETWORK FILTERS AND TRANSMISSION LINES (10 Marks)

Networks: Two port (four terminals) network: Symmetrical and asymmetrical networks: Balanced and unbalanced network, -network, network, Ladder network; Lattice network; L-network and Bridge T-network. Symmetrical Network: characteristic impedance, propagation constant, attenuation constant, phase shift constant and insertion loss. T-network and Network. Asymmetrical Network: iterative impedance, image impedance, image transfer constant and insertion loss. The half section (L-section); symmetrical T and sections into half sections. Attenuators: Symmetrical T and type, L type.

Filters: low pass, high pass, band pass and band stop filters.

Prototype Filter Section, M-Derived Filter Sections, Crystal Filters & Active Filters. Transmission Line:

characteristic impedance, propagation constant, attenuation constant and phase shift constant,

infinite line, reflection and standing waves, reflection coefficient, SWR & VSWR.

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Annexure "22"

"ASSISTANT PHYSICAL TRAINING INSTRUCTOR (APTI)"

SYLLABUS FOR WRITTEN TEST
Marks M

Marks :-150
Time :- 2.30 Hours

Foundation of Physical Education: 20 marks

- Concept of Physical Education.
- Aims and objectives of Physical Education. Scope of Physical Education in modern Era.
- Explain Cognitive domain, psychomotor domain, Affective domain.
- Relationship between Physical Education and General Education.
- Nature, meaning and scope of Philosophy in Physical Education.
- Major components of Philosophy.
- Philosophies of Physical Education (Idealism, Naturalism, Pragmatism, Realism & Existentialism).

Historical Perspective: 15 marks

- Physical education in Ancient and Modern India
- Physical Education in Greece, USA, Germany, British and Rome.
- Ancient and Modern Olympic Games
- Asian and Common Wealth Games.
- South Asian Federation (S.A.F) Games
- National sports awards (Arjuna award, Dronacharya award, Rajiv Ghandi khel Ratna Award, Maulana Abul Kalam Azad (MAKA) Trophy.
- Famous sports Personalities in India.

Officiating and Coaching: 15 marks

- Concept of Officiating and Coaching
- Moderns Trends in Coaching
- Duties of Officials
- Layout of standard track.
- Dimension and marking for track and field events.
- Rules and their interpretation of track and field events.
- Rules and regulations of different games (Football, Volley Ball, Hockey, Basket Ball, Cricket, Kho Kho, Kabaddi and Badminton.

Psychological Foundations: 15 marks

- Sports Psychology and factors effecting sports performance.
- Elements of learning, individual differences in learning, Learning Curve
- Theories of learning, Nature of motor skill learning.
- Transfer of training.
- Personality, Dimensions of personality.
- Growth and Development at different stages.
- Heredity and Environment.

Sociological Foundation: 10 marks

- Socialization bases of Physical Education,
- Sports as cultural Heritage of Man Kind
- Cooperation and competition, social recognition.
- Social Institutions, Social Development.
- Group Dynamics, Leadership and its importance.
- Media in Sports, Politics in Sports
- National / International integration through Sports

Kinesiology: 10 marks

- Historical Development of kinesiology, its need and scope in Physical Education & Sports.
- Axes and planes of movements, line of pull.
- Structure, Classification of the muscles and Joints.
- Origin Insertion and action of major muscles.
- Meaning of Biomechanics, role of biomechanics in Physical Education.
- Motion, types of motion, Newton's laws of motion.
- Equilibrium, Stability and its principles. Lever and its types. Spin, Projectile and Impulse,

Training Methods: 15 marks

- Characteristics and principle of sports training
- Different methods of sports training.(Interval training, Weight Training Circuit training, Fartlek training and Plyometric Training).
- Development of Different Motor Abilities.
- Vital capacity, Second wind, Fatigue, Oxygen debt.
- Effect of training on muscular system, Respiratory system and Circulatory System.
- Technical and tactical preparation of Sports
- Warm-up, its types and values.

Management: 20 marks

- Introduction, Meaning and Definition of management.
- Management techniques and financial management.
- Meaning of Organization and Administration.
- Organization of Physical Education and sports at different levels.
- Supervision and Evaluation in physical education and sports.
- Concept of teaching and Learning and Methods of Teaching.
- Lesson plan, Importance and need of lesson plan.

Planning: 20 marks

- Meaning, Importance and Principles of Planning.
- Short term &Long Term Planning.
- Intra-mural and Extra mural tournaments.
- Talent Identification & Classification of students
- Sports meet and Sports day.
- Education technology and Teaching aids.
- Criteria for the selection of Players.

First aid: 10 marks

- Concept, Meaning of first aid and its types.
- Principles of First Aid.
- Sports injuries, types of injuries, causes of injuries and their Treatment in various cases (Sprain, Strain, Dislocation, Fracture, Burns, abrasions, & Cuts).
- Definition and concept of Rehabilitation.
- Goals and principles of Rehabilitation.
- Massage Manipulation & therapeutic Exercises.
- Doping in Sports.

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Annexure "23"

Marks:-150
Time:-2:30 Hours

Syllabus for Written test (Objective Type) for the post of MATRIC LEVEL

Section I English. (20 Marks)

Unseen Passage, Phrases, Pronouns, Homonyms/ homophones, Tenses, Clauses, Punctuation, Articles. Basic understanding of English Language, Essay and letter writing. **20 Marks**

Section-I Mathematics (30 Marks)

Unit 1 Algebra

Pair of Linear Equation in two variables, Algebraic conditions for number of solutions. Simple situational problems may be included, simple problems on equations reducible to linear equation may be included. **03 Marks.**

Unit II Polynomials and Quadratic equation

Zeroes of a Polynomial, Relationship between Zeroes and coefficients of polynomial with particular reference to quadratic polynomials. Statement and simple problems on division algorithm for polynomials with real coefficients. Standard form of Quadratic equation ax2+bx+c=o, (a O), problems felated to day to day activities to be incorporated. **05 Marks**

Unit III Trigonometry

Tribonometric ratios of an acute angle of a right angled. Relationship between the ratios. Trigonometric indentities. Applications of the identity Sin2A+Cos2A=1, Trigonometric ratios of complementary angles. Simple and believable problems on heights and distances. Angle of elevation/depression should be only 30, 45, 60.

04 Marks

Unit IV Mensuration

Problems on finding surface areas and volumes of combination of any two of the following cubes, cuboids, spheres, hemispheres and right circular cylinders/cones. Frustum of a cone. Problems involving converting one type of metallic solid into another and other mixed problems. **08 Marks**

Unit V Probability

Repeated experiments and observed frequency approach to probability. Focus is on empirical probability. Classical definition of probability. Simple problems on single even, not using set rotation.

10 Marks

Section III Physics (20 Marks)

Unit I Light-Reflection and Refraction

Reflection of light, spherical mirrors; Image formation; uses of spherical mirrors. Sign, conventions for spherical mirrors. Refraction of light, refraction through a glass, refractive indes, conditions for no refraction. Spherical lenses, image formation, sign conventions, lens formula (only relation). **05 Marks**

Unit II The Human Eye and the Colorful World

Human eye; power of accommodation; defects of vision and their correction. Glass prism (refraction and dispersion). Atmospheric refraction-twinkling of stars and color of sun at sunrise and sunset.

05 Marks

Unit III Electricity

Concept of electric charge. Electric current; electric potential and potential difference; Ohm's Law and experimental verification; resistance and its dependence. Heating effect of current-Electric power and energy**.**

05 Marks

Unit IV Source of Energy

Various sources of energy; Conventional sources of energy; improvement in technology for using conventional source of energy (Biomass and wind energy). Non-conventional sources of energy (Solar energy, Energy from Sea). Nuclear energy (Nuclear fusion and nuclear fission). Lasting of energy sources.

05 Marks

Section-IV Chemistry (30 Marks)

Unit –I Chemical Reactions and Equation

Chemical equation, writing of chemical equation; balancing chemical equations. Types of chemical reactions; viz Combination reactions; Decomposition reactions; Displacement reactions; Double displacement reactions; Oxidation and reduction. Effects of oxidation and reduction reactions in everyday life, viz, corrosion and rancidity.

05 Marks

Unit-II Carbon and its Compounds

Bonding in Carbon, Covalent bond, Allotropes of Carbon; Versatile nature of carbon; Saturated and unsaturated hydrocarbons; chains; branches and rings; homologous series and its characteristics. Chemical properties of carbon compounds viz. combustion; oxidation; addition and substitution reactions. Important Carbon compounds like Ethane and Ethanoic acid. Properties of Ethanoic acid. Soaps and Detergents.

10 Marks

Unit-III Metals and Non-Metals

Physical properties of metals and non-metals. Chemical properties of metals like action of water, air, acids, salts. Cause of reactivity of metals and non-metals. Properties of Ionic compounds. Corrosion of metals and its prevention**.**

05 Marks

Unit IV Acids, Bases and Salts

Idea about acids and bases; Chemical properties of acids and bases viz. Action of metals, metal carbonates, metal hydrogen carbonates (only in case of acids), metallic acids; non-metallic acids and bases. Similarities in acids and bases; reaction of acids and bases with water. Strength of acids and base solutions; pH and its importance. Idea of salts, their

family and pH. Chemicals from common salts like Sodium hydroxide, Baking soda and Washing soda; Hydrated salts, plaster of paris.

10 Marks

Section Biology (50 Marks)

Unit-I Life Processes

What are life processes? Nutrition-Autotrophic Nutrition. Heterotrophic Nutrition. How do animals obtain their nutrition? Nutrition in Human beings. Respiration. Transportation: Transportation in plants. Excertion: Excertion in Human beings, Excertion in plants**.**

10 Marks

Unit-II Control and Co-Ordination

Animals- Nervous System, What happens in Reflex Action? Human Brain. How are these tissues protected? How does Nervous tissue cause action? Coordination in plants, immediate response to stimulus, movements due to growth. Hormones in Animals.

10 Marks

Unit-III How do Organisms Reproduce?

The importance of variation. Modes of reproduction used by unicellular organisms. Fission, Fragmentation, Regeneration, Vegetative Propogation, Budding, Spore Formation, Sexual Reproduction: Why the sexual mode of reproduction? Reproduction in human Beings. Male Reproductive System, Female Reproductive System. What happens when the egg is not fertilized? Reproductive Health.

10 Marks

Unit-IV Heredity and Genetics

Accumulation of variation reproduction, Heredity: Inherited traits, Rules for the interitance of traits, Mendel's contribution. How do these traits get expressed? Sex determination. Acquired and inherited traits.Speciation. Classification, tracing evolutionary relationships, fossils, evolution by stages.

05 Marks

Unit-V Our Environment

Environment and Ecosystem- What are its components? Food chains and webs. How do our activities effect the environment? Ozone layer and how it is getting depleted. Managing the garbage we produce. **05 Marks**

Unit-VI Management of Natural Resources

Why do we need to Manage our Resources? Forests and Wild life, Stake holders, Sustainable Management, Dama, Water harvesting. Coal and Petroleum. An overview of Natural Resources Management.

10 Marks

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(www.jkssb.nic.in)

Annexure "24"

Syllabus for written test (Objective Type) for the posts of GRADUATION LEVEL

Time: 02.30Hrs.
Marks: 150

Unit-I **GENERAL ENGLISH** **20 Marks**

(I) Tenses
(II) Rearranging of jumbled sentences.
(III) Narration
(IV) Models
(V) Articles
(VI) Comprehension with blanks to be filled in with Phrases, Pronouns, 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.

Unit-II **GENERAL KNOWLEDGE AND CURRENT AFFAIRS** **30 Marks**

- Important dates in Indian History / Freedom struggle, different dates and events.
- First in world (Adventure, Sports, Discoveries).
  First in India (Adventure, Sports, Discoveries).
- Popular names of Personalities (Religion, Politics, Scientific discoveries, Geographical, Sports, History)
- The Newspaper world – (Current Dailies & Weeklies of India).
- Books & Authors – General
- Languages.
- Capitals & Currencies.
- United Nations Organisations – Veto Powers
  No. of Countries as its Members.
  Principal organs and their functions.
- SAARC, ASEAN.
- Everyday Science
- World famous Awards - (1. in Science)
  (2. in Literature)
  (3. in Sports)
- National Awards - (1. in Science)
  (2. in Literature)
  (3. in Sports)
- The world of Sports
- Climate & Crops in India.
- Democratic institutions
- Forms of Government
- Political & Physical divisiions of world & India
- Important rivers & Lakes in India.
- Current Events of Natioal and International Level.
- Role of Mathematics in Economics.
- Agriculture in economic development; Industrialization and economic development.
- Indian Foreign Trade
- New economic reforms and growth of foreign trade.
- Inflation – Concept and types; Causes and consequences

UNIT-III **GENERAL KNOWLEDGE WITH SPECIAL REFERENCE TO J&K** **25 Marks**

(I) Abbrevations, Important dates, popular names of personalities and their achievements/ Contribution (National and International).
(II) Constitution of J&K – Formation, Fundamental rights, Directive Principles.

(III) Weather, Climate, Crops, Means of Transport.
(IV) Important power projects and their impact on State Economy.
(V) Rivers and Lakes.
(VI) Important Tourist Destinations.
(VII) History of J&K State.
(VIII) Historical places of the State and their importance.
(IX) RTI Act.
(X) Indus Water Treaty and its impact on State economy.

Unit-VI **GENERAL SCIENCE** **25 Marks**

(i) Various sources of energy; conventional sources of energy; improvement in technology for using conventional source of energy (Biomass and wind energy)
(ii) Non-conventional sources of energy (Solar energy,Tidal energy).
(iii) Mechanics, Rest, motion, Velocites, acceleration, Newton Laws of motion,
(iv) Voltage, Current, Resistance, Power, D.C Batteries
(v) Waves, light as a wave, Sound waves, Transverse and longitudinal waves.
(vi) Structure of Atom
(vii) Solids, Liqids and Gases(Basics)
(viii) Life processes: Nutrition and its types, Respiration, Transportation of water, food and minerals in plants.
(ix) Vitamins- Dieases related to vitamin deficiency.
(x) Environmental pollution.
(xi) Ecosystem – Its components, Food chains and Food webs.
(xii) Ozone layer, its depletion, Green House Effect.
(xiii) Importance of water in life

Unit-V **MENTAL ABILITY TEST** **25 Marks**

(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.
(IX) Logical Reasoning.
(X) Mental Reasoning.

Unit-VII **Computer Applications** **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 Acess and Powerpoint Presentation
(VI) E_mail & Internet

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Zum Zum Hotel, Rambagh, Srinagar
*****

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Annexure "25"

Syllabus for 8th Class Board Examination

1. English

a) Nouns and its kinds
b) Parts of Speech
c) Masculine/feminine (Gender)
d) Number (20 Marks)

2. Science

a) Micro-organism (useful and harmful micro-organism)
b) Coal and Petroleum origin and uses.
c) Reproduction in Animals (Elementary Knowledge)
d) Matter and its States
e) Force and Pressure.
f) Motion- Elementary Knowledge.
g) Stars and Solar System.
h) Pollution of Air and Water.
i) Carbon and its allotropic forms.
j) Light (50 Marks)

3. History

a) Indian Freedom Struggle after the revolt of 1857.
b) Gandhiji era of Freedom Struggle.
c) Moderater and Extremists.
d) Reform Moments. (25 Marks)

4. Geography

a) Natural Resources
b) Demographic Profile of Jammu and Kashmir State.
c) Population of India as per 2011 Census.
d) Wildlife National Parks and Sanctuaries in Jammu and Kashmir.

e) Hydroelectric Potential of Hydroelectric Power Houses in Jammu and Kashmir. (25 Marks)

5. <u>Mathematics</u>

a) Rational Numbers

b) Linear Equation in one Variable

c) Squares and Square roots.

d) Cubes and cube roots.

e) Simple Algebraic Identities. (30 Marks)

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Government of Jammu and Kashmir
J&K Services Selection Board
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Annexure "26"

Syllabus for written test (Objective Type) for the posts of Technician III

Syllabus for written test (Objective Type) for the above said posts

Time= 2.30 Hours.
Total Marks=150

Topics	Marks
Various safety measures involved in the Industry. Elementary first Aid. Concept of Standard Identification of Trade-Hand tools-Specifications Fundamental of electricity. Electron theory- free electron . Fundamental terms, definitions, units & effects of electric current Solders, flux and soldering technique. Resistors types of resistors & properties of resistors. Explanation, Definition and properties of conductors, insulators and semi-conductors. Voltage grading of different types of Insulators, Temp. Rise permissible Types of wires & cables standard wire gauge Specification of wires & Cables-insulation & voltage grades -Low , medium & high voltage Precautions in using various types of cables	15 Marks
Ohm's Law - Simple electrical circuits and problems. **Resistors -**Law of Resistance. Series and parallel circuits. **Kirchoff's** Laws and applications. Wheatstone bridge principle and its applications . Common Electrical Accessories, their specifications-Explanation of switches lamp holders, plugs and sockets .Developments of domestic ckts, Alarm & switches, lamp, fan with individual switches, Two way switch .	10 Marks
Chemical effect of electric current-Principle of electrolysis. Faraday's Law of electrolysis. Basic principles of Electro-plating and Electro chemical equivalents. Explanation of Anodes and cathodes. Lead acid cell-description, methods of charging-Precautions to be taken & testing equipment, Ni-cadmium & Lithium cell, Cathodic protection. Electroplating, Anodising Rechargeable dry cell, description advantages and disadvantages. Care and maintenance of cells Grouping of cells of specified voltage & current, Sealed Maintenance free Batteries, Solar cell. Lead Acid cell, general defects & remedies.	05 Marks

Nickel Alkali Cell-description charging. Power & capacity of cells. Efficiency of cells	
ALLIED TRADES: Marking use of chisels and hacksaw on flats, sheet metal filing practice, filing true to line. Sawing and planning practice. Practice in using firmer chisel and preparing simple half lap joint. Drilling practice in hand drilling & power drilling machines. Grinding of drill bits. Practice in using taps & dies, threading hexagonal & square nuts etc. cutting external threads on stud and on pipes, riveting practice. Practice in using snips, marking & cutting of straight & curved pieces in sheet metals. Bending the edges of sheets metals. Riveting practice in sheet metal. Practice in making different joints in sheet metal in soldering the joints.	05 Marks
Magnetism - classification of magnets, methods of magnetising, magnetic materials. Properties, care & maintenance, methods of magnetising magnetic materials. Para & Diamagnetism and Ferro magnetic materials. Principle of electro-magnetism, Maxwell's corkscrew rule, Fleming's left & right hand rules, Magnetic field of current carrying conductors, loop & solenoid. **MMF**, Flux density, reluctance. **B.H**. curve, Hysteresis, Eddy current. Principle of electro-magnetic Induction, Faraday's Law, Lenz's Law. Electrostatics - Capacitor- Different types, functions & uses Resistance- Different Types of resistors used in electrical ckts. Specification of resistance and tolerance. Effect of variation of temperature on resistance. Different methods of measuring the values of resistance Working principles and circuits of common domestic equipments & appliances	10 Marks
D.C. Machines - General concept of Electrical Machines. **Principle of D.C. generator.** Use of Armature, Field Coil, Yoke, and Commutator, slip ring Brushes, Laminated core. Explanation of **D.C. Generators**-types –parts. **E.M.F**. equation-self excitation and separately excited Generators-Practical uses. Brief description of series, shunt and compound generators. Expl. Of Armature reaction, interpoles and their uses, connection of interpoles, commutation.	10 Marks
DC Motors - Terms used in D.C. motor-Torque, speed, Back-e.m.f. etc. their relations practical application. Related problems Types, characteristics and practical application of D.C. motors. Special precaution to be taken in DC Series motors. Starters used in D.C. motors Types of speed control of DC motors in industry Word-Leonard control, Thyristor/electronic controls. Insulting materials – properties common insulting materials, classifications	10 Marks
Electric wirings, importance, I.E.E. rules. Types of wirings both domestic & industrial - Specifications for wiring – Grading of cables and current ratings. Principle of laying out in domestic wiring-testing by meggar **Wiring system - U**sing casing capping, P.V.C., concealed system. -Maintenance & Repairing data sheet preparation.. Specifications, standards for conduits & accessories **Earthing** - Principle of different methods of earthing. Importance of Earthing. -Earth Leakage Relay.	12 Marks
Alternating Current -Comparison D.C& A.C. , Advantages of A.C. Alternating current & related terms frequency Instantaneous value, R.M.S. value Average value, Peak factor , form factor. Generation of sine wave, phase and phase difference. Inductive & Capacitative reactance X_L & Xc, Impedance (Z), power factor,(P.f) ; Vector diagram. Active and Reactive power, Simple problems on A.C. circuits, single phase & three-phase system etc. Problems on A.C. ckts. Both series & parallel power consumption P.F. etc.	10 Marks

Concept three-phase Star & Delta connection Line voltage & phase voltage, current & power in a 3 ph ckt, with balanced and unbalanced load.	
TRANSFORMERS Working principle of Transformer, classification C.T., P.T. Instrument and Auto Transformer/Variac Construction, Single phase and Poly phase. E.M.F. equation, parallel operation of transformer, their connections. Regulation and efficiency, Cooling of transformer, protective devices. Specifications, simple problems on e.m.f. Equation, turn ratio, regulations and efficiency. Special transformers. **Transformer -** construction cores winding shielding, auxiliary parts breather, conservator buckholtz relay, other protective devices cooling of transformer Transformer oil testing and Tap changing off load and on load. Transformer bushings and termination.	10 Marks
ALTERNATOR – Explanation of alternator, prime mover, types, regulations, phase sequence, specification of alternators and brushless alternator. Automatic Voltage Regulator.	05 Marks
Electrical measuring Instruments - -types Deflecting torque, Controlling torque & Damping torque , -Moving coil permanent magnet -Moving iron -Range extension -Multimeter -Wattmeter - P.F. meter -Intergrading type, Digital Energy meter – megger. -Energy meter -Frequency meter - Tri vector meter -Max Demand meter -Phase Sequence indicator -Multimeter –Analog and Digital - C.R.O, Explanation of light White light-illumination factors, intensity of light –importance of light, human eye factor units. Types illumination & lamps -Neon sign Halogen, Mercury vapour, sodium vapour, Fluorescent tube CFL, Solar lamp applications, Concept of Energy -Characters watt ages, fixing places. Types of lighting. Decoration lighting Drum Switches, Direct & indirect lighting-efficiency in lumens per watt, colour available. Thumb rule calculations of lumens. Estimating placement of lights and fans and ratings.	10 Marks
TRANSFORMER – **winding ,** Principle of different winding techniques **D.C. m/c Winding--** pole pitch, coil pitch, back pitch, front pitch , Lap & Wave winding , Progressive and retrogressive winding. **SYNCHRONOUS MOTOR -** Working principle, effect of change of excitation and load. Application in industry in power factor improvement.	05 Marks
Induction motor – Working principle, Squirrel Cage Induction motor , Slip-ring induction motor- Construction and characteristics, starting and speed control. D.O.L Starter, Star /Delta starter, Autotransformer starter.	08 Marks
Single phase induction motor- Working principle, different method of starting and running (capacitor start/capacitor run, shaded pole technique). FHP motors. **A.C**. m/**c Winding--** Armature winding terms, coil side, end coil and grouping of	07 Marks

coils. Connection to adjacent poles, connected armature winding, alternate pole connection, armature winding. **Universal motor**-advantages Principle, characteristics, applications in domestic appliances and industry, Fault Location and Rectification. **Converter**-inverter, M.G.Set-description-Characteristics, specifications-running and maintenance. Techniques, procedures of Layout of conduit wiring as per I.S-732-1963. Use of flame proof and explosion proof, Installation of P.V.C. conduct switches.	
Fuse / cut out / kit Kat – function, characteristics, and materials. H.R.C Fuses – application. Contactors – Miniature circuit breakers. **Relays** – Thermal, Electromagnetic, solid state relays, Control Relays and Protective Relays. **Industrial wiring**. Code of practice & relevant span. Wiring of electric motors, control panel, etc. Types, specifications, advantages of different types of circuit brackets construction and maintenance. I.E.E. rules for overhead service lines, study of U.G.Cables and laying techniques. Working principle and construction of domestic and agricultural appliances-their maintenance Corona, Lightning arrestor/lighting conductor, Horn gap. Introduction to **Basic electronics**- Semiconductor energy level atomic structure. 'P' & 'N' type of materials –P-N-junction. Diode-classification of Diodes – Revered Bias and Forward Bias , Heat sink. Specification of Diode – PIV rating. Explanation and importance of D.C. Rectifier ckt. Half wave, Full wave and Bridge ckt. L.E.D. and Solar cells.	08 Marks
Filter ckts-passive filter. Working principle and uses of an oscilloscope Explanation of principle of working of a transistor- Types of transistors Characters of a transistors Biasing of transistors. Mode of use of transistor. Specification and rating of transistors Explanation of transistor Amplifiers, Amplifiers. – class A,B & C Power amplifier Explanation of oscillator-working principle Explanation of stages and types. Multivibrator – applications. OP-AMP – Working principles and applications. Timer I.C.555 Explanation. and working principle and practical applications of U.J.T., F.E.T., S.C.R. Diac, Triac, power MOSFET, G.T.O & I.G.B.T. D.C/A.C Power control using power transistor, thyristor. Voltage stabilizer, U.P.S. DC/AC motor drives using transistor/thyristor. Power Supply Stabilizer, Ferro resistant circuit. DC/AC motor drives using Thyristor/Transistor control	05 Marks
Digital Electronics -Binary numbers, logic gates and combinational ckts, Flip Flops, Counter, Register & Timer. Complete House-wiring layout. Circuit splitting load wire. I.E.E. Rules. Multistoried system. Fault finding and trouble shooting of domestic electrical appliances. **Decorative lighting -** Fault finding techniques in Decoration lighting.	05 Marks

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