

**KARNATAKA NURSING & PARAMEDICAL SCIENCES EDUCATION
(REGULATION) AUTHORITY**

PARA MEDICAL BOARD, BENGALURU

SUPPLY EXAMINATION APRIL 2024

**I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN MEDICAL LABORATORY
TECHNOLOGY(DMLT)**

TIME: 3 Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 2101 SECTION-A, ANATOMY

I Long Essay (Any 1)

1 x 10 = 10

1. Name the Endocrine Glands. Describe the Thyroid Gland.(6 + 4)
2. Name the parts of Respiratory System. Describe the Lungs (5 + 5)

II. Short Notes (Any 5)

5 x 5 = 25

3. Types of Epithelium with Examples.
4. Stomach
5. Name the Bones of Upper Limb
6. Histology of Hyaline Cartilage
7. Uterus
8. Draw and label a Nephron
9. Describe the Chambers of the Heart

III. Short Answers

5 x 2 = 10

10. Name the coverings of the Brain
11. Name any two muscles of Lower Limb
12. Name the parts of Eyeball
13. Name the parts of Small Intestine
14. Parts of Long Bone

QP code- 2102 SECTION -B, PHYSIOLOGY

IV Long essay-answer any ONE.

1x10=10

15. Classify leucocytes. Describe each leucocytes morphology and add a note on its function.
16. Describe in detail about clotting mechanism

V. Write short notes on any FIVE.

5x5=25

17. Describe the phases of gastric secretion.
18. Describe Neuromuscular junction with a neat labelled diagram.
19. Hormones responsible for Different phases of Menstrual cycle.
20. State Landsteiner's law.
21. Describe the stages of Deglutition.
22. What is cretinism
23. Diabetes insipidus.

VI. Short answers

5x2=10

24. Name any two female planning methods.
25. Write two functions of Gall bladder.
26. Write the normal values of a) Residual volume.
b) Total lung capacity.
27. Write the normal values of a) Bleeding time. b) Clotting time.
28. Name any two functions of cerebellum.

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TIME: 3 Hrs (RS -2 SCHEME)
MAX. MARKS: 100**

QP CODE: 5101 SECTION -A ANATOMY

SHORT ANSWERS- ANSWER ANY FOUR

4 X 5 = 20

1. Draw the labeled diagram of Cell.
2. Classify synovial joints with examples.
3. Describe kidney in detail.
4. Describe the layers of skin with examples
5. Chambers of Heart

SHORT NOTES

10 X3 = 30

6. Name the paranasal air sinuses
7. Name two muscles in the Upper limb.
8. Draw a neat labeled diagram of Neuron
9. Mention different parts of small intestine
10. Thyroid gland
11. Name any three hormones secreted by pituitary gland
12. Name all ventricles of brain
13. Hyaline cartilage
14. Name 4 sensory organs
15. Median cubital vein

QP CODE: 5102 SECTION -B, PHYSIOLOGY

SHORT NOTES (ANSWER ANY FOUR)

4 x 5 = 20

16. Explain the stages of Deglutition.
17. Draw a neat diagram of ECG and write a note on ST Segment
18. Functions of Liver.
19. Diabetes Mellitus.
20. Oogenesis.

SHORT ANSWERS

10 x 3=30

21. Explain in detail the causes of each heart sounds.
22. Functions of Hemoglobin.
23. Draw a neat labelled diagram of Mitochondria.
24. Draw a neat diagram of sarcomere
25. Functions of skin
26. List the movements of gastrointestinal tract
27. Define acromegaly.
28. Name three Cranial nerves.
29. Name three Anticoagulants.
30. Functions of middle ear.

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PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN MEDICAL X-RAY
TECHNOLOGY(DMXT)
TIME: 1.30Hrs (RS -1 SCHEME) MAX. MARKS: 45**

QP CODE: 2121, GENERAL PHYSICS

LONG ESSAY – ANSWER ANY ONE

1x10=10

1. Explain the construction and working of rotating anode X-ray tube.
2. Define transformer with labelled diagram. Mention types of transformers and uses in production of x-rays.

SHORT NOTES – ANSWER ANY FIVE

5 x5 = 25

3. Properties of X-rays.
4. Space charge region.
5. Electromagnetic radiations.
6. Anode heel effect.
7. Solid state rectifiers.
8. PN Junction diode.

SHORT ANSWERS

5 x 2 = 10

9. Inverse square law.
10. Structure of atom.
11. Semiconductors.
12. Tungsten.
13. Ohm's law.

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SUPPLY EXAMINATION APRIL 2024**

II YEAR DIPLOMA IN MEDICAL IMAGING TECHNOLOGY(DMIT)

TIME: 3Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

**QP CODE: 5121
RADIATION PHYSICS**

SHORT NOTE- ANSWER ANY EIGHT

8X5=40

1. Construction and working of auto transformer
2. Image intensifier tube
3. Ultrasound transducer
4. Bremsstrahlung radiation
5. Write a note on atom
6. Construction of rotating anode X-ray tube
7. High frequency generators
8. Modes of radioactive decay
9. Working principle of CT
10. Write the effects of kVp and mAs on image quality

SHORT ANSWERS

20X3=60

11. Name X-ray beam restrictors
12. Inherent filters
13. X-ray artifacts
14. Define half-life
15. State ohms law
16. Mass number
17. Step-down transformer
18. Bone densitometer
19. Penumbra
20. CT number
21. Earthling
22. Define potential difference, current and resistance
23. Fluoroscopy
24. Switches
25. Primary and secondary radiation
26. Define isotopes with example.
27. AC and DC
28. Pair production
29. Properties of X-ray
30. Grids

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN OPERATION
THEATRE TECHNOLOGY(DOTT)
TIME: 3Hrs (RS -1 SCHEME) MAX. MARKS: 90**

QP CODE: 2131

**FUNDAMENTALS OF OT and BASIC CONCEPTS IN SURGERY
(WRITE IN GREEN ANSWER BOOK)**

LONG ESSAY – ANSWER ANY TWO

2x10=20

1. Describe the types of wound healing. Describe the factors influencing wound healing
2. Explain principles of sterile technique. How do you control contamination in O.T.?
3. Discuss the role of OT technicians in day care surgery

SHORT NOTES –ANSWER ANY TEN

10x5=50

4. Ryles tube
5. Care and handling of instruments in OT
6. Enumerate the different types of suture materials
7. Write the concept in laparoscopic surgery
8. Harmonic scalpel
9. Haemostasis
10. Dextrose solution
11. Surgical checklist
12. Fumigation
13. Health care team
14. Ambulatory surgery
15. Absorbable suture materials

SHORT ANSWERS

10x 2=20

16. Draping
17. Circumcision
18. Three techniques of draping
19. AMBU bag
20. Povidone iodine
21. Biomedical waste
22. Autoclave
23. Vacuum suction
24. Endoscopy
25. MRI

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA IN OPERATION THEATRE & ANAESTHESIA
TECHNOLOGY (DOT & AT)**

TIME: 3Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE- 5131

**FUNDAMENTALS OF OT and BASIC CONCEPTS IN SURGERY
(WRITE IN GREEN ANSWER BOOK)**

SHORT NOTES- ANSWER ANY EIGHT

8x5 =40

1. Concepts of Laparoscopic Surgery
2. CPR
3. CSSD
4. Ambulatory surgery
5. Pre-operative care
6. Health care TEAM
7. Disinfection
8. Surgical scrubs
9. What are the various types of cauterly
10. Principles of Sterile techniques

SHORT ANSWERS

20x3= 60

11. Informed consent
12. Vacuum suction
13. Gowning & Gloving
14. Sources of contamination
15. Mop count
16. Trendelenburg surgery
17. Endotracheal tube
18. Plethysmography
19. Methods of haemostasis
20. Appendicectomy
21. Fluid management
22. IV Cannulation
23. Circulating nurse
24. Hemoperitoneum
25. Sim's position
26. Vicryl suture material
27. Staplers
28. Catheterisation
29. Boyle's apparatus
30. Surgical checklist

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA IN MEDICAL RECORD TECHNOLOGY(DMRT)
TIME: 3Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE: 5141 , MEDICAL RECORDS SCIENCE

SHORT NOTES- ANSWER ANY EIGHT

8X5=40

1. Functions of medical records department
2. Discharge and acquittal
3. Medical audit and its functions
4. Personal and impersonal document
5. Values of medical records to doctors and patient
6. Duties and responsibilities of central admitting office
7. Middle digit filing
8. Arrest without warrant
9. Duties and responsibilities of medical record technician
10. Workman's compensation act

SHORT ANSWERS

20X3=60

11. Deficiency check
12. Accession register
13. Summons
14. Consent and its types
15. Accident registers and its contents
16. Types of courts in India
17. Midnight census and its uses
18. Discharge analysis
19. Chronological order of assembling
20. Deficiency checks of case sheets
21. Warrant
22. Death summary
23. Bed occupancy rate
24. Wound certificate
25. Discharge against medical advice
26. Types of indexes
27. Uses of birth certificate
28. Admission register
29. Complaint
30. Decree

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN DIALYSIS
TECHNOLOGY (DDT)**

TIME: 3 Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

**QP CODE: 2151
LONG ESSAY-ANSWER ANYONE**

SECTION A: PHARMACOLOGY

1 x 10 =10

1. Name six parental route of drug administration with examples. Mention three advantages and disadvantages of intravenous route. [6+2+2]
2. Name Four NSAIDS. Mention three uses and three adverse effects of Paracetamol [4+3+3]

WRITE SHORT NOTES ON ANY FIVE

5 x 5 = 25

3. Uses and adverse effects of Rifampicin.
4. Uses and adverse effects of Corticosteroids.
5. Uses and adverse effects of Benzodiazepines
6. Gentamicin- Uses and adverse effects.
7. Vitamin K
8. Name Four drugs used in Local Anaesthesia. Mention three different techniques with Uses of Local anaesthesia.

WRITE SHORT ANSWERS

5 x 2 = 10

9. Name two Live attenuated Vaccines.
10. Name two drugs used as anti-Malarial Drugs
11. Mention two drugs used for treating Anaphylaxis.
12. Name Two Chelating agents
13. Name two Anti Diabetic drugs.

QP CODE: 2152

SECTION B: THEORY OF DIALYSIS

Answer any one question

1 x 10 =10

14. List complications of hemodialysis. Explain any two.
15. Explain the extracorporeal blood circuit with labelled diagram.

Short notes Answer any five questions

5x5=25

16. Explain tunnelled cuffed catheter.
17. Discuss cannulation techniques with their advantages and disadvantages.
18. Describe fluid composition of human body.
19. Discuss anticoagulation in hemodialysis.
20. Explain principles of hemodialysis.
21. Discuss indications for dialysis.

Short answers

5x2=10

22. List three iron therapy.
23. List any three disinfectants used in reprocessing dialyzers
24. Define Reverse Osmosis/RO.
25. Write the advantages of dialyzer reuse.
26. List three functions of kidney.

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II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY(DDT)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE: 5151 SECTION A: APPLIED PHARMACOLOGY

SHORT ESSAY (ANSWER ANY FOUR) 4 X 5 = 20

1. Mention 3 parenteral routes of drug administration; write the advantages and disadvantages of intra muscular route of drug administration
2. Name 5 drugs used in hypertension and write uses and adverse effects of ACE Inhibitors.
3. Name Four Aminoglycosides. Mention uses and adverse effects of Aminoglycosides.
4. Name Four Local Anesthetics and write mechanism of action with techniques used in Local Anesthesia.
5. Name Four Opioids. Mention uses and adverse effect of Opioids.

SHORT ANSWERS

10 X 3 = 30

6. Plasma Half Life
7. Name 3 Antitussives.
8. Name 3 Oral Iron preparations.
9. Mention 3 uses of Diuretics.
10. Name 3 uses of heparin.
11. Name 3 killed Vaccines.
12. Name 3 Uses of Corticosteroids.
13. Name 3 Oral Hypoglycemic agents.
14. Name any THREE Topical and THREE liquid dosage forms
15. Name 3 General Anesthetics.

QP CODE: 5152 SECTION B: THEORY OF DIALYSIS

SHORT NOTES - ANSWER ANY FOUR (4x5=20)

16. Classify & explain vascular access.
17. Define anticoagulation. Explain various types of heparinization.
18. Explain advantages and disadvantages of Peritoneal Dialysis (PD).
19. Write a short note on Chronic Renal Failure and its stages.
20. Explain maintenance of water treatment plant.

SHORT ANSWERS

(10x3= 30)

21. Classify dialyzer
22. Chemicals used to reprocess dialyzer
23. Dialysate composition
24. Kt/V
25. Ultrafiltration
26. Draw a neat labelled diagram of water softener
27. List six common tests done for hemodialysis patients
28. List three urgent indications for dialysis
29. List three indications for saline dialysis
30. List three causes for conductivity alarm

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN OPHTHALMIC
TECHNOLOGY(DOT)**

TIME: 3 Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 2161, OPHTHALMOLOGY-1

I LONG ESSAY (Answer any two)

2x10=20

- 1] Mention different types of Ametropia? write in detail about Myopia
- 2] Anatomy of conjunctiva.
- 3] Draw a cross section of lids and name the parts.

II SHORT NOTES (Answer any Ten)

10x5=50

- 4] Vitamin A deficiency.
- 5] Allergic conjunctivitis.
- 6] Layers of cornea
- 7] Tonometer.
- 8] Post operative care of cataract patients
- 9] Lacrimal Syringing
- 10] Keratometry
- 11] Dacryocystitis
- 12] Layers of tear film with diagram
- 13] Aqueous Humour Dynamics
- 14] Diabetic retinopathy

III SHORT ANSWERS Answer any Ten

10X2=20

- 15] Two Uses of Concave Lenses
- 16] Mention 4 causes of lid swelling
- 17] Mention two causes of night blindness
- 18] Mention two uses of Prism in Ophthalmology
- 19] Mention 4 causes of Painless loss of vision
- 20] Mention 2 glands of conjunctiva
- 21] Mention 2 field defects in glaucoma
- 22] Mention 2 causes for Hyphema
- 23] Mention 2 causes for high intraocular pressures
- 24] Mention 2 surgical procedure for astigmatism
- 25] Types of cataract surgery

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II YEAR DIPLOMA IN OPHTHALMIC TECHNOLOGY(DOT)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100
QP CODE: 5161, OPHTHALMOLOGY-1**

I. Short Notes, Answer Any Eight Questions,

8x5=4

1. Explain the laws of reflection. Illustrate with diagram
2. Write a short note on
 - a) Aniseikonia
 - b) Anisometropia
3. Draw a neat labelled diagram of Cross section of the eyeball
4. Optics of retinoscopy
5. Aphakia and its correction
6. Define hypermetropia. Component and treatment for hyperopia
7. Advantages and disadvantages of contact lens
8. Name cycloplegics eyedrops and describe their uses
9. Define types and treatments of color vision
10. How do you test near and distance vision? Mention the materials used for the test

II. Short Answers:

20x3=60

11. Presbyopia
12. Parts of spectacles
13. JCC
14. Diagram of the crystalline lens
15. Causes of myopia
16. Keratometry
17. Advantages of contact lens
18. Antireflection coating
19. A- scan
20. Grades of binocular single vision
21. Worth four dot test
22. Uses of prism
23. Tear film
24. Types and causes of astigmatism
25. Define Ametropia, mention its type
26. High-index lens
27. Layers of retina
28. Lenticular lenses
29. Name the extraocular muscles
30. Write simple transposition of the lens
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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/ II YEAR CERTIFICATE COURSE IN DENTAL
MECHANICS (DDM)**

TIME: 1Hrs30Mins

(RS -1 SCHEME)

MAX. MARKS: 45

QP CODE:2171, DENTAL MATERIALS & METALLURGY

I. LONG ESSAY - ANSWER ANY ONE 1 X 10 = 10

- 1) Classify impression materials. Write in detail about reversible hydrocolloid.
- 2) Define alloy and mention the various alloys used in dentistry. Add a note on base metal alloys.

II WRITE SHORT NOTES ON ANY FIVE 5 X 5 = 25

- 3) Phosphate bonded investments
- 4) Inlay wax
- 5) Materials used in maxillofacial prostheses
- 6) Zinc phosphate cement
- 7) Composition of heat cure acrylic resins
- 8) Addition silicon impression material.
- 9) Annealing and tempering

III. WRITE SHORT ANSWERS 5 X 2 = 10

- 10) Soldering and Welding
- 11) Name the casting defects
- 12) Types of stainless steel
- 13) Plaster of Paris.
- 14) Separating media

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SUPPLY EXAMINATION APRIL 2024
II YEARDIPLOMA IN DENTAL MECHANICS (DDM)
TIME: 1Hrs30Mins (RS -2 SCHEME) MAX. MARKS: 50**

QP CODE: 5171, DENTAL MATERIALS& METALLURGY

1 Short Notes, Answer Any Four Questions

4x5 = 20

- 1) Classify Gypsum products and write about Dental Stone
- 2) Impression compound
- 3) Dental waxes.
- 4) Denture base materials
- 5) Base metal alloys

II Short Answers

10x3 = 30

- 6) Acrylic teeth
- 7) Niti wires
- 8) Advantages and disadvantages of Alginate
- 9) Uses of Glass Ionomer cement
- 10) Glazing
- 11) Types of luting cements
- 12) Ductility and Malleability
- 13) Separating media
- 14) Recent advances in Porcelain
- 15) Soldering and Welding

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SUPPLY EXAMINATION APRIL 2024
II YEARDIPLOMAIN DENTAL HYGIENE (DDH)
TIME: 1 Hrs 30Mins (RS -2 SCHEME) MAX. MARKS: 50**

QP CODE:5181

SECTION A: GENERAL ANATOMY & HISTOLOGY

I SHORT ANSWERS- ANSWER ANY TWO 2X5= 10

- 1.Name the bones of Skull. Describe Mandible
- 2.Draw and Label parts of Urinary System.
- 3.Name the Endocrine Glands. Describe Thyroid Gland.

II SHORT NOTES 5X3 = 15

- 4.Name the Muscles of Mastication.
- 5.Name the Salivary Glands.
- 6.Types Of Epithelium
- 7.Name the Parts Of Eyeball.
- 8.Name the Parts of Long Bone.

QP CODE:5182

SECTION B: GENERAL PHYSIOLOGY

III. SHORT NOTES ANSWER ANY TWO 2 x 5 = 10

9. Composition and functions of saliva.
10. Functions of liver.
11. Spermatogenesis

IV. SHORT ANSWERS 5 x 3=15

12. Draw a neat labelled diagram of normal ECG
13. Name the types of muscles.
14. Define cardiac output and give its normal value.
15. Give the normal value of RBC count and Platelet count
16. Name the refractive errors of eye

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA IN PHYSIOTHERAPY (DPT)
TIME: 3Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE:4191, ANATOMY

I SHORT NOTES- ANSWER ANY EIGHT

8 x 5 =40

1. Muscles of mastication
2. Pectoral girdle
3. Blood supply to intestine
4. Arches of foot
5. Lymphatic drainage of Breast
6. Pituitary gland
7. Cubital Fossa
8. Mediastinum
9. Superficial palmar arch
10. Brachial plexus

II SHORT ANSWERS

20 x 03 = 60

11. Nerve supply of Tongue
12. Name the parts of Urethra.
13. Mention the types of skeletal muscles with examples
14. Name extra ocular muscles
15. Pons
16. Rotator cuff of shoulder joint
17. Sternal angle
18. Nerve supply of face
19. Name hormones of ovary
20. Trapezius muscle
21. Folds of peritoneum
22. Features of clavicle
23. Pleura
24. Broncho-pulmonary segment
25. Great Saphenous vein.
26. Brain stem
27. Motor Speech area.
28. Facial nerve
29. Ventricles of the brain
30. Parts of hip bone

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SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN PHYSIOTHERAPY (DPT)
TIME: 3Hrs (RS -2 SCHEME) MAX. MARKS: 100
QP CODE: 6191, SECTION-A, P.T IN MEDICAL CONDITIONS**

SHORT NOTES – ANSWER ANY FOUR

(4x5=20)

1. Discuss about Cerebral Palsy and its management.
2. Explain Muscular Dystrophy, types and management.
3. Role of Physiotherapist in ICU.
4. Accessory muscles of breathing.
5. Define Dyspnoea. Mention its types.

SHORT ANSWERS

(10x3= 30)

6. Poliomyelitis.
7. Spirometry.
8. Deep Vein Thrombosis.
9. ECG.
10. Uses of Postural Drainage.
11. Scoliosis.
12. APGAR score.
13. Define Oedema. Mention its types.
14. LMN Lesion.
15. Differentiate between Rigidity and Spasticity.

QP CODE: 6192, SECTION-B, P.T IN SURGICAL CONDITIONS

SHORT NOTES – ANSWER ANY FOUR

(4x5=20).

16. Types of Hernia and PT management of Herniotomy.
17. Name the Pelvic floor muscles and methods to improve strength of pelvic floor muscles.
18. Explain importance of Antenatal exercises.
19. ACL injury - Etiology, clinical features, treatment, post-operative management.
20. Explain Hemipelvectomy and its PT management.

SHORT ANSWERS

(10x3= 30)

21. Pre-OP PT management of Cholecystectomy.
22. GB Syndrome.
23. Define Autogenic drainage.
24. Prevention of bedsores.
25. Raynaud's disease.
26. Thoracoplasty and its management.
27. PT management of Varicose veins.
28. Simmonds Test.
29. Ilizarov fixator.
30. Surgical emphysema.

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II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN MEDICAL LABORATORY
TECHNOLOGY(DMLT)**

TIME: 3 Hrs (RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 3101, BIOCHEMISTRY

I. Long essay: (answer any two)

10X2=20

1. List normal and abnormal constituents of urine. Describe the tests to detect abnormal constituents in urine. (2+2+6)
2. Describe digestion of carbohydrates. Explain regulation of blood glucose. (5+5)
3. Write the pathway of TCA cycle. Describe its importance (7+3).

II Write short notes on any TEN

10X5=50

4. Ion selective electrodes
5. Digestion of proteins
6. Describe principle and clinical applications of electrophoresis
7. Outline formation of creatinine
8. Formation of Ketone bodies
9. ELISA
10. Outline urea synthesis
11. Chromatography
12. Reactions of Glycolysis
13. Autoanalyser
14. Renal function tests
15. Oral GTT

III. Write short answers

10X2=20

16. L J Chart
17. List the constituents of gastric juice
18. Normal values of serum electrolytes
19. Define precision and accuracy
20. Name two protein digesting enzymes
21. Storage of reagent kits
22. Name any 2 liver function tests (LFT) and its normal values
23. Principle of Ion Selective electrodes
24. Mention any 4 pre-analytical errors
25. Name any 2 diagnostic markers of Myocardial Infarction or Heart attack

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SUPPLY EXAMINATION APRIL -2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN HEALTH INSPECTOR
(DHI)
TIME: 3 Hrs (RS -1 SCHEME) MAX. MARKS: 90**

QP CODE: 3111, COMMUNITY MEDICINE-1

TIME : 3 hour

- I. Long Essay – Answer any TWO 2X10=20**
1. Define Primary Health Care. write briefly on principles of Primary Care Healthcare.
 2. Mention Agent, Host and Environmental factors for Tuberculosis. Explain DOTS (Directly Observed Treatment Short course) strategy.
 3. Write Agent, Host and Environmental factors for Road Traffic Accidents. Add a note on its prevention.
- II. Write short notes on any TEN 10 X 5=50**
4. Describe danger signals of cancer.
 5. Name water borne diseases. Add a note on its Prevention and Control.
 6. Passive surveillance in Malaria.
 7. Causes of blindness. Mention the national programme for the same.
 8. Enumerate functions of WHO (World Health Organization).
 9. First aid in burns.
 10. Causes of Acute Respiratory infection in children. Mention National Programme with reference to the Respiratory infections.
 11. Rules of Halves in Hypertension.
 12. Causes of obesity and its prevention.
 13. Mention three drugs used in treatment of Leprosy.
 14. Write routes of transmission of HIV and its prevention.
 15. Agent, Host and Environmental factors for Dengue.
- III. Write short answers 10X2=20**
16. Self care in Diabetes.
 17. Mention two screening tests for Cancer.
 18. Mention two drugs used in tuberculosis.
 19. Mention four risk factors for cardiovascular disease.
 20. Mass treatment.
 21. Vitamin A prophylaxis.
 22. Hazards of smoking.
 23. Prevention of Hookworm infestation.
 24. Mention home available oral fluids.
 25. Mention 3 vaccines for infants.

**KARNATAKA NURSING & PARA MEDICAL SCIENCES EDUCATION
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PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL -2024
III YEAR DIPLOMA IN HEALTH INSPECTOR (DHI)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE: 6111, COMMUNITY MEDICINE, PAPER I

I SHORTNOTES: ANSWER ANY EIGHT

8x5=40

1. Epidemiology of Dengue fever
2. Write in brief about steps in Investigations of epidemic
3. Road traffic accidents and its prevention
4. Modes of HIV transmission
5. Pulse polio Immunization
6. Add a note on vitamin A prophylaxis programme
7. Hazards of Obesity
8. Epidemiology of typhoid
9. Janani Suraksha yojana
10. Swach Bharath Mission

II. SHORTANSWERS

20x3=60

11. Mention any four zoonotic diseases
12. Integrated vector control measures
13. BCG Vaccine
14. Epidemic, Endemic and Pandemic
16. Vaccine carrier
17. Danger signals of Cancer
18. Congenital Rubella Syndrome
19. Opportunistic infection in AIDS
20. Three diseases transmitted by faeco-oral route
21. Three sexually transmitted diseases
22. Harmful effects of tobacco on health
23. Symptoms of tuberculosis
24. Modifiable risk factors of hypertension
25. Name the diseases which can be transmitted through blood transfusion
26. BMI Classification
27. Integrated Counseling and Testing Centre (ICTC)
28. Diseases transmitted by Aedes mosquito
29. Mission Indra Dhanush
30. Mass drug administration in filariasis

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**PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL -2024**

**II YEAR DIPLOMA/ III YEAR CERTIFICATE COURSE IN MEDICAL X-RAY
TECHNOLOGY(DMXT)**

TIME: 3 Hrs (RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 3121, RADIOLOGY INCLUDING RADIOLOGY PHYSICS

I. LONG ESSAY- ANSWER ANY TWO

2x10=20

- 1) Digital fluoroscopy
- 2) High frequency generators
- 3) Properties of radiation

II. WRITE SHORT NOTES ON ANY TEN.

10X5=50

- 4) Stationary Grids and its construction
- 5) kVp and mAs and its effect on image quality.
- 6) Rotating anode x ray tube
- 7) Piezoelectric effect
- 8) Half life
- 9) Automatic processing
- 10) Automatic Exposure Control
- 11) Preparation of photographic solutions.
- 12) Digital Mammography
- 13) Digital Radiography-DR
- 14) X-ray film construction.
- 15) Coherent Effect.

III. WRITE SHORT ANSWERS

10X2=20

- 16) Filter
- 17) Film badge
- 18) Grids
- 19) Lead glass
- 20) Pixel and voxel
- 21) Frequency of ultrasound
- 22) Isomers
- 23) Thermionic emission
- 24) MRI
- 25) Gamma emission

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PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL -2024
III YEAR DIPLOMA IN MEDICAL IMAGING TECHNOLOGY(DMIT)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100**

**QP CODE: 6121, RADIOGRAPHIC POSITIONING & RADIOGRAPHIC
PHOTOGRAPHY**

I. SHORT NOTE- ANSWER ANY EIGHT

8X5=40

1. Cardinal principle
2. Radiation effects
3. X-ray beam restrictors
4. Skull- different views
5. Contrast media
6. Immobilizing devices
7. Grids
8. Gas filled detectors
9. Anatomical planes
10. Describe important Skull Lines.

II. SHORT ANSWERS

20X3=60

11. mAs and kVp
12. Carpel tunnel view
13. Stretcher transfer technique
14. Importance of patient preparation
15. Environmental safety measures
16. Bedside radiography
17. Fog
18. Resolution
19. Shoulder axial view
20. Asepsis
21. Radioactive materials
22. TLD
23. Chest view
24. Orbitomeatal line
25. Bone survey
26. Man made radiation sources
27. LMP
28. Carpel bones
29. Claustrophobia
30. View for nasal bone

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PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL -2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN OPERATION THEATRE
TECHNOLOGY(DOTT)
TIME: 3Hrs (RS -1 SCHEME) MAX. MARKS: 90**

QP CODE: 3131, ANAESTHESIA & ALLIED TOPICS

I. ANSWER ANY 2

2x10 = 20

1. Classify muscle relaxant. Write their mechanism of action. Add a note on Atracurium.
(3+2+5)
2. What are the indications and contra- indications of spinal anaesthesia? Write a note on side-effects of spinal anaesthesia.
3. Steps of Anaesthesia machine check. Add a note on Bain's circuit

II . Write short notes on any 10

10 x 5 = 50

4. Ketamine.
5. Colour coding of cylinders and inhalational Anaesthesia
6. IV cannula colours and gauges
7. Different types of Supraglottic Airways.
8. Oxygen delivery systems.
9. Biomedical waste management.
10. Sterilisation of OT and equipment's
11. Basic life support.
12. Indications of steroids.
13. Causes and prevention of intraoperative hypothermia.
14. Different positions in Anaesthesia and their indications.
15. Blood transfusion reactions and its treatment.

III . Write short answers

10 x 2= 20

16. Propofol
17. Name three Vasopressors and their uses.
18. Name three bronchodilators
19. Treatment of post spinal shivering
20. Tourniquet
21. ASA grading.
22. Written informed consent.
23. Different types of laryngoscopes
24. Antiemetic drugs
25. Reversal agents.

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PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL -2024
III YEAR DIPLOMA IN OPERATION THEATRE & ANAESTHESIA
TECHNOLOGY(DOT & AT)**

TIME: 3Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 6131, ANAESTHESIA & ALLIED TOPICS

QP CODE 6131

I. Short notes Any Eight

8x 5 = 40

1. Name intravenous induction agents. Add a note on propofol.
2. Biomedical waste management
3. What are the complications of spinal anaesthesia and their treatment.
4. Write a note on muscle relaxants.
5. Write a note on indications and complications of blood transfusion
6. Preparation before anaesthesia- technician duties and responsibilities
7. Cardio pulmonary resuscitation
8. Write a note on supraglottic airway devices
9. Steps of general anaesthesia
10. Classify local anaesthetics. Write a note on lidocaine.

II . Short Answers

20 x 3 = 60

11. Name vasopressors and their indications
12. Alpha -2 agonists and their uses
13. Name bronchodilators and their uses
14. Jackson and Rees circuit
15. Name antiemetics and their dosage
16. What are the airway adjuncts used for difficult airway?
17. Adjuvants for spinal and epidural anaesthesia
18. OT sterilization methods
19. Invasive and non invasive monitoring under anaesthesia
20. Uses of perioperative steroids
21. Intravenous fluids-types and indications
22. Written informed consent
23. Different positioning under anaesthesia and their indications
24. Reversal agents –mechanism of action , dosage and side effects
25. Classify analgesics with an example for each group
26. Oxygen delivery systems
27. Peri operative anxiety – management
28. Different gauges of intravenous catheters and colour coding
29. CO₂ absorber
30. Treatment of intra operative hypothermia.

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PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL -2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN MEDICAL RECORDS
TECHNOLOGY(DMRT)**

TIME: 3Hrs (RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 3141 MEDICAL TERMINOLOGY

- 1. Answer the following** **5x3=15**
a). Define Eponyms and give three examples
b). Chief Sources of Medical terminology and give two examples for each
c). Define Adjective suffixes and Noun suffixes with two examples.
- 2. Write the prefixes for the following** **5x1=5**
a) Not lack off b) Before c) Through d) Under e) Across
- 3. Write the Suffixes for the following** **5x1=5**
a) Rupture b) Tumor c) Suture d) Softening e) Disease
- 4. Write the Roots for the following** **5x1=5**
a) Bladder b) Eyelid c) Muscle d) Vertebra e) Uterus
- 5. Give the meanings for the following phobias** **10x1=10**
a. Fear of Marriage
b. Fear of children
c. Fear of Crowds
d. Fear of Pain
e. Fear of water
f. Fear of Doctor
g. Fear of Everything
h. Fear of colors
i. Fear of Dogs
j. Fear of Water
- 6. Differentiate the following terms** **5x2=10**
a) Addiction & Adduction b) Callus & Callous. c) Endemic & Epidemic
d) Epigastric & Epispastic e) Carpus & Corpus
- 7. Match the following** **5x1=5**
a. Hysterectomy
b. Addison's Disease
c. Hematemesis
d. Geriatrics
e. Quadriplegia
f) Paralysis of all the four extremities
g) Vomiting of Blood
h) Primary adrenal deficiency
i) Study & treatment of Old age diseases
j) Excision of uterus
- 8. Give the Medical Terms for the following** **10x1=10**
a) Dimness vision.
b) Fluid on the peritoneal sac or abdominal cavity.
c) Paralysis affecting both sides.
d) Difficulty in breathing.
e) Painful intestinal contractions.
f) Young appearance in old age
h) Enlargement of liver and spleen
i) Removal of tonsil
j) Fixation of an undescended testes
k) Profused sweating
- 9. Define the following** **10x1=10**
a. Cholelithiasis
b. Hematoma
c. Glycopenia
d. Iritis
e. Splenomegaly
f. Dyspepsia
g. Glycemia
h. De-hydration
i. Hypertension
j. Metacarpals
- 10. Expand the following abbreviations** **10x1=10**
a. RHD
b. PPBS
c. NLDO
d. TVH
e. EEG
f. ABCD
g. BOO
h. DCR
i. LFT
j. PIVD
- 11. Give the meaning for the following colours** **5x1=5**
a. Flavus. b. Candidus, c. Erythros. d. Cirrhos. e. Albus

KARNATAKA NURSING & PARA MEDICAL SCIENCES EDUCATION

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PARA MEDICAL BOARD, BENGALURU

SUPPLY EXAMINATION APRIL -2024

III YEAR DIPLOMA IN MEDICAL RECORDS TECHNOLOGY (DMRT)

TIME: 3Hrs

(RS -2 SCHEME)

MAX MARKS: 100

QP CODE: 6141, MEDICAL TERMINOLOGY

SHORT NOTES - ANSWER ANY EIGHT

8X5=40

1. Define prefix and write any three prefixes with meanings
2. Define Suffix and write any three suffixes with meanings
3. Define phobia and write any three phobias with meanings
4. Name the anatomical divisions of back
5. Define stasis and Epistaxis
6. Sources of Medical terminology and write two examples for each
7. Eponyms and Homonyms with one example for each
8. Name the planes of the body
9. Define the term aphonia and aphasia
10. Define Paediatrics and Geriatrics

SHORT ANSWERS

20X3=60

11. Give the meaning for the colours
a) Candidus b) Glaucos c) polios
12. Give the meaning for the numericals
a) Singlus b) October c) Mega
13. Give the meaning for the phobia
a) Acrophobia b) Pema phobia c) Algophobia
14. Give the meaning for the prefix
a) Cata b) Dys c) Dia
15. Give the meaning for the suffix
a) Ectasis b) Megaly c) Pathy
16. Give the meaning for the suffix
a) Desis b) Pexy c) Tripsy
17. Give the meaning for the suffix
a) Genic b) penia c) Spasm
18. Give the meaning for the roots
a) Angio b) Dacry c) Gastr
19. Define the medical term
a) Anemia b) Adrenal c) Dysuria
20. Define the medical term
a) Hydrocele b) Carditis c) Myelitis
21. Define the medical term
a) Dactylitis b) Nephritis c) gastritis
22. Differentiate between Carpus and corpus
23. Differentiate between Aural and oral
24. a) Inflammation of the kidney is called -----
b) Inflammation of the heart is called _____
c) Inflammation of the lung is called _____
25. Expand the abbreviation a) COPD b) MRI c) LRTI
26. Define the operative term a) Orchiectomy b) Hysterectomy c) Pneumonectomy
27. Define the term a) Lithotripsy b) Rhinoplasty c) Gastrectomy
28. Define the term a) Asthenia b) Macrodon c) Hyperension
29. Define the term a) Glaucoma c) Sarcoma c) Carcinoma
30. Write true or false
a) Inflammation of the liver is called Hepatomegaly
b) Increased blood pressure is called Hypotension
c) Excessive increase of white blood cells is called anemia

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PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL -2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN DIALYSIS
TECHNOLOGY (DDT)**

TIME: 3 Hrs (RS -1 SCHEME)

MAX MARKS: 90

QP CODE: 3151, FUNDAMENTALS OF HEMODIALYSIS AND COMPONENTS

LONG ESSAYS – ANSWER ANY TWO

2 X 10 =20

1. Describe in detail regarding dialysis solution preparation including disinfection of machine.
2. Mention sites and types of venous catheterization, write about immediate and long term complications
3. Write in detail regarding reuse of hollow fibre dialyzers – and methods involved.

WRITE SHORT NOTES ON ANY TEN

10 X 5 =50

4. Access recirculation
5. Saline rinse
6. Sterilization
7. Universal precautions in dialysis unit
8. Dialyzer reactions
9. Regional anticoagulation
10. Water treatment
11. Monitors in dialysis machine
12. Blood stream infections in dialysis patients
13. Ultrafiltration in maintenance hemodialysis patients
14. Alarms in dialysis machines
15. Anemia in dialysis patients

WRITE SHORT ANSWERS

10 X 2 =20

16. Name 2 disinfectants used in Hemodialysis.
17. Name two vaccines used in renal failure.
18. Name 2 dialysable drugs.
19. Name two causes of acute kidney injury.
20. Name 2 plasma proteins.
21. Auxillary members of dialysis unit.
22. Mention 2 important serum electrolytes.
23. Two indications to initiate hemodialysis.
24. Normal blood pressure and pulse rate value range.
25. Deionization.

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SUPPLY EXAMINATION APRIL -2024**

III YEAR DIPLOMA IN DIALYSIS TECHNOLOGY (DDT)

TIME: 3 Hrs

(RS -2 SCHEME)

MAX MARKS: 100

QP CODE: 6151, DIALYSIS-1

I. Answer any eight questions

8x5=40

1. Define acute kidney injury. Explain causes of acute kidney failure.
2. Discuss steps of dialyzer reprocessing.
3. Explain the prescription for SLED.
4. Describe in brief about dialysate circuit with its sensors.
5. Enumerate CRRT modalities.
6. Explain Kt/V.
7. Define arterio venous shunt. Describe its procedure with advantages & disadvantages.
8. Enumerate the causes of CKD. Explain CKD stage 4.
9. Explain tunnelled hemodialysis catheters with its complications.
10. Explain complications during hemodialysis.

II. Short answers

20x3=60

11. Name three diuretics.
12. Define pseudoaneurysm.
13. List three antihypertensive drugs.
14. List three chemicals used in reprocessing dialyzer.
15. Name three viral infections seen in HD patients.
16. Rule of 6's.
17. List three advantages of arterio venous fistula.
18. List three indications for CRRT.
19. List three complications of arterio venous graft.
20. Write normal pulse rate, Blood pressure and respiratory rate per minute.
21. Name three antibiotics used to treat catheter infection.
22. List three complications of heparin.
23. What are the steps in hand washing?
24. Write three chemicals used to disinfect dialysis machine.
25. What are the common organisms causing catheter infection?
26. Name three temporary vascular accesses.
27. Renal diet.
28. Write the types & dose of erythropoietin.
29. List three intravenous iron therapy.
30. Three indications of heparin free dialysis.

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SUPPLY EXAMINATION APRIL -2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN OPHTHALMIC
TECHNOLOGY (DOT)
TIME: 3 Hrs (RS -1 SCHEME) MAX MARKS: 90**

QP CODE: 3161, OPTHALMOLOGY

GENERAL INSTRUCTIONS:

Write a neat diagram wherever necessary, handwriting should be legible.

- I. LONG ESSAY - ANSWER ANY TWO** **2 × 10 = 20**
1. Define keratometry and explain the various types of keratometry
 2. Explain bed making procedure in detail
 3. Describe in detail on the pre-operative preparation
- II. SHORT NOTES ANSWER ANY TEN** **10 × 5 = 50**
4. Trial set
 5. Spherical and cylindrical lens.
 6. Tonometer and its types
 7. Direct ophthalmoscope
 8. Pterygium and its surgery
 9. Optics of lensometer
 10. Fumigation
 11. Autoclaving
 12. Progressive addition lenses
 13. Ocular bandaging
 14. Neutralization of lens
 15. Chalazion surgery
- III. SHORT ANSWERS** **10 × 2 = 20**
16. LASIK
 17. Lacrimal syringing
 18. Define low vision
 19. Post mydriatic test
 20. Optical aberrations
 21. Tonometry
 22. Illumination techniques of slit lamp
 23. Near Vision charts.
 24. Types of retinoscopy
 25. Epilation

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SUPPLY EXAMINATION APRIL -2024
III YEAR DIPLOMA IN DENTAL MECHANICS(DDM)
TIME: 1Hrs30Mins (RS -2 SCHEME) MAX MARKS: 50**

QP CODE:6171, COMPLETE DENTURES

I. WRITE SHORT NOTES ON ANY FOUR

4 X 5 = 20

- 1) Posterior Palatal Area
- 2) Principal factors in teeth arrangement
- 3) Importance of Jaw relation records
- 4) Relining and Rebasing
- 5) Steps in Denture processing

II. WRITE SHORT ANSWERS

10 X 3 = 30

- 6) Effects of increased vertical dimension
- 7) Repair of denture
- 8) Buccal shelf area
- 9) Types of cast
- 10) Impression trays
- 11) Complete denture impression materials
- 12) Try in procedure
- 13) Keys of occlusion
- 14) Beading and Boxing
- 15) Trimming and polishing of denture

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SUPPLY EXAMINATION APRIL -2024**

III YEAR DIPLOMA IN DENTAL HYGIENE (DDH)

TIME: 3 Hrs

(RS -2 SCHEME)

MAX MARKS: 100

**QP CODE: 6181, ETIOLOGY AND PATHOGENESIS OF PERIODONTAL
DISEASE**

I. SHORT NOTES: ANSWER ANY EIGHT QUESTIONS

8X5=40

1. Define and Classify Dental Calculus.
2. Microscopic features of keratinised mucosa
3. Clinical features of Gingivitis
4. Define dental plaque and explain stages of plaque formation.
5. Define Cementum. Classify Cemento-enamel junction.
6. Effect of Smoking on Periodontium.
7. Clinical features of Periodontitis.
8. Role of Saliva in Defence Mechanism of Gingiva.
9. Diabetes and Periodontal disease
10. Principal fibres of periodontal ligament

II. SHORT ANSWERS

20X3=60

11. Attached Gingiva.
12. Dental stains.
13. Gingival Crevicular fluid.
14. Periodontal pocket
15. Furcation involvement
16. Function of Periodontal ligament
17. Composition of saliva.
18. Gingival recession.
19. Classification of dental plaque.
20. Bundle bone
21. Periodontal abscess
22. Plunger cusp
23. Pericoronitis
24. Hyper cementosis.
25. Blood supply to gingiva.
26. Food impaction.
27. Drugs causing Gingival enlargement
28. Acute herpetic gingivostomatitis
29. Non-specific plaque hypothesis
30. Causes for gingival bleeding.

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SUPPLY EXAMINATION APRIL -2024
II YEAR DIPLOMA IN PHYSIOTHERAPY (DPT)
TIME: 3Hrs (RS -2 SCHEME) MAX MARKS: 100
QP CODE:5191 SECTION A: PATHOLOGY**

SHORT ESSAY – ANSWER ANY FOUR

4x5=20

1. Define Anemia. List the basic laboratory investigations required in a case of anemia.
2. Define Shock. Write about types and Pathogenesis.
3. Difference between Marasmus and Kwashiorkor.
4. Define Pneumonia. Stages of pneumonia
5. Classify viral hepatitis. Discuss in detail about chronic hepatitis

SHORT NOTES

10x3=30

6. Risk factor of Peptic ulcer.
7. Difference between Tuberculous meningitis and Pyogenic meningitis
8. Write in brief about Goitre.
9. Types of gall stones
10. Osteomyelitis
11. Write in brief about Hypertrophy.
12. List the factors affecting wound healing
13. Bronchiectasis .
14. Give a brief account of Gangrene.
15. Fallot's tetralogy.

QP CODE:5192 SECTION B: MICROBIOLOGY

Write Short notes (any four)

4 X 5 = 20

16. Write the structure of Immunoglobulin (Ig) with a neat labelled diagram.
17. Laboratory diagnosis of Mycobacterium tuberculosis.
18. Define sterilization. Add a note on Autoclave.
19. Define Immunity. Add a note on Passive immunity
20. Classify hypersensitivity reactions. Write a note type I hypersensitivity reaction.

Write Short answers

10 X 3 = 30

21. Name 3 sexually transmitted diseases
22. BCG vaccine
23. Name 3 Gram positive cocci
24. Mode of transmission of Hepatitis B virus
25. Name 3 nosocomial infections
26. Pasteurisation.
27. Name 3 catalase positive organisms
28. Name 3 anerobic organisms
29. Covid vaccine
30. Name 3 organisms causing UTI.

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SUPPLY EXAMINATION APRIL -2024
FIRST YEAR ALL CERTIFICATE COURSES**

TIME: 1Hrs 30 Mins (RS -1 SCHEME)

MAX MARKS: 45

QP CODE: 1101, PHYSICS

I LONG ESSAY –ANSWER ANY ONE

10×1=10

1. What is a thermometer ? explain the types.
2. Define Energy. State and explain Law of conservation of energy with respect to freely falling body.

II WRITE SHORT NOTES ON ANY FIVE

5×5=25

3. Ohm's law
4. Reflection
5. Ultrasonic
6. Gas laws
7. Transverse wave
8. Lens
9. Artificial satellite

III WRITE SHORT ANSWER

5×2=10

10. Dispersion
11. Work and Power
12. Kinetic energy & potential energy
13. Define temperature and write SI unit
14. Radioactivity

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SUPPLY EXAMINATION APRIL -2024
FIRST YEAR ALL DIPLOMA COURSES**

TIME: 3Hrs

(RS -2 SCHEME)

MAX MARKS: 100

QP CODE: 4101, PHYSICS

I SHORT NOTES –Answer any EIGHT questions.

8×5=40

1. Define surface tension. Write a note on capillarity.
2. Derive an expression for resistors connected in parallel
3. State and explain Pascals law. Write the working of hydraulic lift.
4. What is atom. Briefly explain structure of atom
5. Match the following.

Solids	Thermistor
Light	Current
Microwave	Radioactivity
Ammeter	Interference
Uranium	Conduction
6. Write a note on ultrasonography.
7. Derive an expression for acceleration due to gravity 'g'
8. Explain osmosis and diffusion with example.
9. Write a note on adiabatic process.
10. Multiple choice questions.
 - a) SI unit of fluid thrust is _____
i) litre ii) Newton iii) Millilitre iv) Pascal
 - b) α -rays are identified as _____ nucleus
i) Helium ii) electron iii) positron iv) deuteron
 - c) Crest and trough is a property of _____
i) Sound ii) light iii) water iv) wave
 - d) _____ is an example for insulator
i) Copper ii) silicon iii) plastic iv) gold
 - e) The property which resist relative motion(flow) of a liquid is _____
i) velocity ii) viscosity iii) turbidity iv) density

II SHORT ANSWERS

20×3=60

11. Define dimension. Write the limitations of dimension.
12. State and explain Newton's law of gravitation
13. Explain any two types of thermometer
14. Write the difference between longitudinal wave and transverse wave
15. Explain the action of PNP transistor
16. Define stress, strain and energy
17. Write the properties of x-rays
18. Give a note on NMR
19. Define refraction .write its laws
20. Fill in the blanks
 - a. Acceleration is the rate of change of _____ with respect to time
 - b. Dimension of force is _____
 - c. A lens that is thicker in the centre than at the edges is called _____ lens

cont..

21. State any two gas laws.
22. Give any four difference between mirror and lens
23. Write a note on spectrophotometer
24. Write the uses of thermistor
25. What is streamline flow and turbulent flow
26. Write application of Bernoulli's theorem
27. Explain the modes of heat transfer
28. State ohms law, write its equation and explain the terms
29. What are photocells? Write its uses
30. Answer the following
 - a. State Hooke's law.
 - b. What is diffusion?
 - c. What is the equivalent temperature of 32°C in Kelvin.

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN MEDICAL LABORATORY
TECHNOLOGY(DMLT)**

TIME: 3 Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 2103- BIOCHEMISTRY

I. Long Essay (Answer any two)

02 X 10 = 20

1. Explain with neat diagram atomic structure. Explain atomic weight, atomic number and molecular weight with examples. (04+02+02+02 = 10)
2. Discuss different types, working, maintenance and uses of centrifuge. (04+02+02+02 = 10)
3. What are enzymes? Describe various factors affecting the enzyme activity. (03+07 = 10)

II. Short Essay (Answer any ten)

10 X 05 = 50

4. Mutarotation.
5. Buffer solutions.
6. Biomedical importance of lipids.
7. Aliphatic compounds with suitable examples.
8. Fully automated analyzer.
9. Give the principle and uses of spectrophotometer.
10. Classification of proteins with examples.
11. pH meter.
12. Biuret test.
13. Phospholipids.
14. Flame photometer.
15. Polysaccharides.

III. Short answer

10 X 02 = 20

16. Mention 2 disaccharides.
17. Two examples of strong bases.
18. Percent solution with examples.
19. Difference between pipette and auto pipette.
20. Normal value of serum electrolytes.
21. Specific gravity of urine.
22. Sucrose.
23. Definition of buffer with examples.
24. Define isoenzymes and give examples.
25. Molisch test.

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PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY(DMLT)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE: 5103-BIOCHEMISTRY

I. SHORT NOTES ON ANY EIGHT

08 X 05 = 40

1. Write about patient identification, specimen collection and storage of samples.
2. Define carbohydrates. Classify with examples.
3. Reactions of amino acids.
4. Define enzymes. Write the factors affecting enzyme activity.
5. Define lipids. Write the properties of lipids and lipoprotein.
6. Reagent stock books.
7. Preparation of standards using conventional and SI units.
8. Significance of volumetric flask in preparing standard solutions.
9. Spectrophotometer – explain with diagram and mention about its uses and maintenance.
10. Water distillation plant – uses, care and maintenance.

II. WRITE SHORT ANSWERS

20 X 03 = 60

11. Name the purine and pyrimidine bases.
12. Name 3 abnormal constituents of urine.
13. Essential amino acids.
14. Isoenzymes.
15. Reference value of plasma proteins.
16. Colorimeter – use and maintenance.
17. Deep freezers – use, care and maintenance.
18. Tripod stand.
19. Wash bottles.
20. Universal indicator.
21. Normal solutions.
22. Body fluid dilution and calculation.
23. Methods of measuring solids.
24. Define disaccharides and give 2 examples.
25. Give the reference values of serum electrolytes.
26. Cuvettes – types and uses.
27. Define pH. Mention the use of pH meter.
28. Name 3 functions of vitamin A.
29. Buffer.
30. Electric balance – use and maintenance.

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN HEALTH INSPECTOR (DHI)
TIME: 3 Hrs (RS -1 SCHEME) MAX. MARKS: 90**

Q P CODE – 2111 COMMUNITY MEDICINE PAPER- I

I. Long Essay – Answer Any TWO 2×10=20

1. Enumerate the Water-Soluble Vitamins. Discuss the Source of Vitamin C, deficiency, and daily requirements. (2+3+3+2)
2. Define Primary Health Care (PHC). Enumerate the Elements of PHC. (2+8)
3. Draw a neat labelled diagram of the Heart and write about any three functions of the Heart. (7+3)

II. Write short notes on any TEN 10×5=50

4. Epidemiological Triad.
5. Responsibilities of an Individual in terms of Health.
6. Enumerate the Modern Life Style Diseases.
7. Enumerate the Infections Transmitted through House fly.
8. Enumerate the Social Factors related to Disease and explain any two in detail.
9. Draw a neat labelled diagram of Stomach.
10. Describe the functions of Liver.
11. Health Team Concept.
12. Explain different Food Habits related to Diseases.
13. Vitamin A prophylaxis.
14. Tick Mite- Disease caused, prevention, and treatment.
15. Explain the process of Refrigeration.

III. Write short answers 10×2=20

16. Any 3 uses of Screening.
17. Write any 2 Indirect Mode of Disease Transmission.
18. Para Boiling and its benefits.
19. The Master Endocrine Gland among the following are:
 - a). Thyroid Gland
 - b). Hypothalamus
 - c). Pituitary Gland
 - d). Growth Hormone.
20. Sources of Water.
21. Give some examples of Food Additives.
22. Enlist any three Micronutrients.
23. Any three Sources of Air Pollution.
24. Nuclear family.
25. Positive Health.

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SUPPLY EXAMINATION APRIL 2024**

II YEAR DIPLOMA IN HEALTH INSPECTOR (DHI)

TIME: 3 Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 5111, COMMUNITY MEDICINE PAPER-1

I. SHORT NOTES: ANSWER ANY EIGHT

8X5=40

1. Mention any three mortality indicators. Define any One.
2. Write neat diagram of eye. Mention its functions.
3. Explain Iceberg Phenomenon with a neat diagram.
4. Write difference between developed and developing countries.
5. Explain Mental dimension of health.
6. Write a neat diagram of female reproductive system and label.
7. Write functions of skeletal systems.
8. Write functions of Red Blood Cells(RBC) with a neat diagram.(3+2)
9. Explain Germ theory of diseases with an example.
10. Explain the epidemiological triad.

II. SHORT ANSWERS

20X3=60

11. Define ligament.
12. Define primary health care.
13. Functions of stomach.
14. Mention three examples for 'agent'
15. Mention any three risk factors for non-communicable disease.
16. Mention any 'at risk groups'
17. What do you mean by Macro-environment.
18. Draw a neat labelled diagram of heart.
19. Mention hormone secreted by Thyroid and its functions.
20. Functions of cerebellum.
21. Health team.
22. Mention three nutrient agent and their deficiency leading to disease.
23. Germ theory of diseases.
24. Define Eradication. Mention candidate diseases for eradication.
25. What do you mean by 'disease control'
26. Passive surveillance.
27. List the male reproductive hormones.
28. Meaning of life style changes with examples.
29. Mention levels of prevention.
30. Mention various types of rehabilitations.

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN MEDICAL X-RAY
TECHNOLOGY(DMXT)**

TIME: 1Hrs 30 Mins

(RS -1 SCHEME)

MAX. MARKS: 45

QP CODE: 2122, ANATOMY

I. Long Essay (Any 2)

2 x 10 = 20

1. Name the parts of Female Reproductive System. Describe the Uterus.
(5+5)
2. Name the parts of the gastrointestinal System. Describe the stomach in
brief. (6+4)
3. Name the Muscles of Upper Limb. Describe Deltoid muscle (6+4)

II. Short Notes (Any 3)

3 x 5 = 15

4. Classify the types of Epithelium with Examples.
5. Describe the Lungs
6. Write three differences between Large intestine and Small Intestine.
7. Kidney

III. Short Answers

5 x 2 = 10

8. Name the ear ossicles.
9. Blood supply to the Heart.
10. Name four Carpal Bones
11. Name the coverings of the brain
12. Draw and label a Neuron

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA IN MEDICAL IMAGING TECHNOLOGY(DMIT)
TIME: 1Hrs 30 Mins (RS -2 SCHEME) MAX. MARKS: 50
QP CODE: 5123, ANATOMY**

SHORT ANSWERS- ANSWER ANY FOUR

4X5=20

1. Describe the Brain and name its coverings.
2. Classify bones with examples
3. Describe heart and its blood supply
4. Name the parts of Urinary System. Draw and Label a Nephron.
5. Describe Liver

SHORT NOTES

10 X3 = 30

6. Name the Lymphoid organs
7. Name the movements at synovial Joints
8. Name the Parts of Stomach
9. Mention the coverings of Testis
10. Name 3 branches of Aorta
11. Name the Carpal bones
12. Name the types of Teeth
13. What is Lumbar Puncture
14. Name the parts of Small Intestine
15. Name 3 muscles of Upper Limb.

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN OPERATION THEATRE
TECHNOLOGY(DOTT)**

TIME: 3Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 2132, SECTION A: BIOCHEMISTRY

I. Long Essay - answer any ONE

1x10=10

1. What is the normal blood glucose level? Explain the factors regulating blood glucose level. Add a note on Benedicts test. (1+6+3)
2. Explain tests for detection of sugar, Urea, creatinine and Protein in blood. (3+3+4)

II. Write short notes on any TWO

2x5=10

3. Explain the renal regulation of blood pH.
4. Clearance tests
5. Describe Urea cycle.

III. Write short answers:

5x2=10

6. Physical characteristics of Urine.
7. Benedicts test.
8. Normal values of Urea and Sodium.
9. Functions of albumin.
10. Absorption of Carbohydrates.

QP CODE: 2133, SECTION B: PHARMACOLOGY

IV ANSWER ANY ONE

1X10=10.

11. Mention the various routes of drug administration with examples. Write the advantages and disadvantages of Intra venous route of drug administration.
12. Name SIX Penicillins. Write the mechanism of action, uses and adverse effects of Penicillins.

V. WRITE SHORT NOTES OF ANY TWO.

2X5=10.

13. Uses and Adverse effects of Paracetamol.
14. Mention three Local Anaesthetics. Mention the techniques of administration of Local Anaesthetics.
15. Aminoglycosides- uses and adverse effects.

VI. WRITE SHORT ANSWERS.

5X2=10.

16. Name TWO Teratogenic drugs.
17. Name TWO Disinfectants.
18. Mention TWO anti-retro viral drugs.
19. Name TWO drugs used in Leprosy.
20. Name Four Benzodiazepines.

QP CODE- 2134 (RS1) SECTION -C, MICROBIOLOGY

I. LONG ESSAY (answer any one)

1x10 =10

21. Draw a neat labelled diagram of a bacterial cell. Describe about bacterial spore. (5+5)
22. Define and classify Disinfectants. Write a note on Autoclave (2+3+5)

II. SHORT NOTES (answer any two)

2 x 5=10

23. Mycobacterium tuberculosis
24. Biomedical waste disposal
25. Operation theatre sterilisation

III. SHORT ANSWERS (answer all)

5x 2=10

26. Name two contributions of Sir Joseph Lister
27. Name two Antiseptics
28. Name two Gram negative bacilli
29. Name two RNA viruses
30. Name two Hospital acquired infections

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PARA MEDICAL BOARD, BENGALURU

SUPPLY EXAMINATION APRIL 2024

II YEAR DIPLOMA IN OPERATION THEATRE & ANAESTHESIA TECHNOLOGY (DOT & AT)

TIME: 3Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 5133 SECTION - A BIOCHEMISTRY

I. SHORT NOTES: ANSWER ANY FIVE

5 X 5 = 25

1. Define and classify carbohydrates.
2. DNA structure and function.
3. Renal function tests
4. Define lipids. Classify lipids with examples.
5. Write the sources, daily requirements and function of calcium
6. What are enzymes, classify enzymes.

II. SHORT ANSWERS

5X 3 = 15

7. Define acid, base and salt
8. Normal constituents of Urine.
9. Polysaccharides.
10. Essential amino acids.
11. Vitamin A and its functions.

QP CODE: 5134, SECTION B: APPLIED PHARMACOLOGY

III. SHORT NOTES- ANSWER ANY THREE

3 X 5 = 15

12. Mention the advantages and disadvantages of Oral route of Drug administration
13. Mention uses, adverse effects and contraindication of Morphine.
14. Pre- Anesthetic medication
15. Uses and adverse effects of Hydrocortisone.

IV Short Answers

5 X 3 = 15

16. Mention three Anti Hypertensives.
17. Name three Aminoglycosides and mention three uses of them
18. Mention three drugs used as antiemetic.
19. Mention three drugs used in Local Anaesthesia.
20. Mention three drugs used as Oral Hypoglycemic drugs.

QP CODE: 5135, SECTION C: MICROBIOLOGY

V. SHORT ESSAY - ANSWER ANY THREE

3x5=15

- 21 Add a note on contributions and postulates of Robert Koch.
- 22 Active immunity
- 23 Draw a neat labelled diagram of bacterial cell
- 24 Autoclave

VI. SHORT NOTES

5x3=15

25. Name three motile bacteria.
26. List the materials sterilized in Hot air oven
27. Name Three RNA viruses.
28. Name three modes of HIV transmission
29. Name three Gram positive bacteria

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN MEDICAL RECORDS
TECHNOLOGY(DMRT)**

TIME: 3Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 2142, SECTION A: ANATOMY

I. LONG ESSAY (ANSWER ANY ONE)

1 X 10 = 10

1. Name the parts of Respiratory System with a labeled diagram. Describe Lungs in brief. (5+5)
2. Name the parts of Female Reproductive System with a labeled diagram. Describe Uterus in brief.(5+5)

II. SHORT NOTES (ANSWER ANY TWO)

2 X 5 = 10

3. Liver
4. Stomach
5. Mention four muscles of abdomen and four muscles of thorax

III. SHORT ANSWERS

5 X 2 = 10

6. Name the parts of Brain stem.
7. Mention four Carpal Bones
8. Name the arteries of Lower Limb
9. Name the Ear Ossicles
10. Name four muscles of thorax.

QP CODE: 2143, SECTION B: PHYSIOLOGY

III. Write short notes on any FOUR.

4x5=20

11. Functions of saliva.
12. Contraceptive methods in females.
13. Properties of cardiac muscle.
14. Stages of Erythropoiesis.
15. Functions of Growth hormone.

IV. Write short answers.

5x2=10

16. Define BP. Give the normal value of BP
17. Name any two types of white blood cells .
18. Draw a neat labelled diagram of neuron.
19. Functions of plasma proteins.
20. Define cardiac output. Give the normal value.

QP CODE: 2144, SECTION C: PATHOLOGY & MICROBIOLOGY

SECTION -C, PATHOLOGY& MICROBIOLOGY

V. Long Essay (Answer any one)

1 x 10= 10

21. Explain the importance of maintenance of medical records in microbiology
22. What are various investigations done in pathology

VI. Short Essay on any two

2x 5 = 10

23. What are the uses of the stored medical records
24. Name different sections in pathology and there functions.
25. Investigations done in Microbiology.

VII Short Answers

5x 2 = 10

26. Name two fungus.
27. Name two viral infection
28. Name two serology tests.
29. Name two test for tuberculosis.
30. Name two bacterial infection

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SUPPLY EXAMINATION APRIL 2024**

**II YEAR DIPLOMA IN MEDICAL RECORDS TECHNOLOGY(DMRT)
TIME: 3Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE: 5143, SECTION A: ANATOMY

SHORT NOTE ANSWER ANY TWO

2X 5 = 10

- 1 Name the Endocrine Glands and describe thyroid Gland.
- 2.Name different parts of Urinary system with a diagram .
3. Liver

SHORT ANSWER

10 X3 = 30

- 4.Name the salivary glands
- 5.Define Anatomical Position
- 6.Name the types of Muscles
- 7.Describe Deltoid Muscle
- 8.Describe Ovaries
- 9.Name 3 arteries of Upper Limb
- 10.Name any three difference between Large and Small Intestine
- 11.Describe Eyeball
12. Stratified Squamous epithelium
13. Mention the coverings of the Brain

QP CODE: 5144, SECTION B: PHYSIOLOGY

WRITE SHORT NOTES (ANSWER ANY THREE QUESTIONS)

3 X 5 = 15

14. Functions of gastric juice.
15. Draw a neat labelled diagram of neuromuscular junction.
16. Errors of refraction and their correction.
17. Describe the stages of Erythropoiesis.

WRITE SHORT ANSWERS

5 X 3 = 15

18. Normal value of a) ESR b) WBC count c) RBC count
19. Functions of plasma proteins.
20. Define Glomerular filtration rate (GFR). Give its normal value
21. Name any two lung volumes.
22. Name any three anticoagulants.

QP CODE: 5145, SECTION C: PATHOLOGY & MICROBIOLOGY

SHORT ESSAY – ANSWER ANY THREE

3x5=15

23. Define acute inflammation. Write about Cardinal sign of inflammation.
- 24.List different serological investigations done in Microbiology.
- 25.Write differences between benign and malignant tumors.
- 26.Osteomyelitis.

SHORT NOTES

5x3=15

- 27.Name the causes of goiter.
- 28.Name 3 Gram positive bacilli.
- 29.Mention 4 parasites of medical importance.
- 30.Name any 3 viruses.
31. Vitamin A deficiency.

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SUPPLY EXAMINATION APRIL 2024**

**I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN DIALYSIS
TECHNOLOGY(DDT)**

TIME: 3 Hrs (RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 2153, SECTION A: BIOCHEMISTRY

I. Long Essay - answer any ONE 1x10=10

1. Write Pathway of Urea cycle. Explain its importance. (7+3)
2. Define Acid, Base and salt. Name Acid base disorders. List factors maintain pH of blood. (3+4+3)

II. Write short notes on any FIVE 5x5=25

3. Renal Function tests
4. Blood Glucose regulation
5. Colorimeter
6. pH meter
7. Spectrophotometer
8. Physical characteristics of urine

III. Write short answers: 5x2=10

9. Normal range of Urea and Creatinine
10. Normal range of Serum electrolytes Na⁺ K⁺ Cl⁻
11. Name tests for detection Protein and Blood in urine
12. Digestion of carbohydrates
13. List abnormal components of Urine

QP CODE: 2154, SECTION B: MICROBIOLOGY

IV. LONG ESSAY (answer any one) 1x10 =10

14. Draw a neat labelled diagram of HIV Virus. Add a note on laboratory diagnosis of HIV/AIDS . (5+5)
15. Draw a neat labelled diagram of a bacterial cell. Describe about bacterial cell wall. (6+4)

V. SHORT NOTES (answer any five) 5 x 5=25

- 16 Modes of transmission of Hepatitis B infection.
- 17 Candidiasis
- 18 Active immunity
- 19 Autoclave
- 20 Hospital acquired infections
- 21 Universal precautions

VI. SHORT ANSWERS (answer all) 5x 2=10

- 22 Name two motile bacteria
- 23 Name two RNA Viruses
- 24 Biomedical waste disposal
- 25 Name two killed vaccines
- 26 Name two anaerobic bacteria

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SUPPLY EXAMINATION APRIL 2024**

**II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY(DDT)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE: 5153SECTION A: BIOCHEMISTRY

I. Short notes (answer any FOUR questions). 4×5=20

1. Arterial blood gas (ABG) analysis
2. pH regulation by blood buffers
3. Define GFR. Explain the clearance tests
4. Name the Purine and Pyrimidine bases present in RNA and DNA
5. Mention the abnormal constituents of urine. Explain the test for Protein.

II. Short answers. 10×3=30

6. How does pH affects the enzyme activity?
7. Name the parts of colorimeter.
8. Name 3 homopolysaccharides
9. Essential amino acids
10. Lipids- definition and classification
11. Name the electrolytes. Mention their normal values.
12. What are reducing sugars? Name the test to identify reducing sugars
13. Vandenberg test
14. Name 3 water soluble vitamins
15. Give the normal serum levels of a) Urea b) Uric acid c) Creatinine

QP CODE: 5154 SECTION B: MICROBIOLOGY

III. SHORT NOTES – ANSWER ANY FOUR 4x5=20

- 16 Contributions of Louis Pasteur
- 17 Hot air oven
- 18 Describe the structure of HIV virus with a neat labelled diagram.
- 19 Describe biomedical waste segregation and disposal.
- 20 Structure of bacterial flagella

IV. SHORT ANSWERS 10x3=30

- 21 Name 3 Gram positive bacteria
- 22 Autoclave
- 23 Name 3 bacterial filters
- 24 Universal precautions
- 25 Sterilization control
- 26 Routes of transmission of Hepatitis B virus
- 27 Name 3 hospital acquired infections
- 28 Name 3 antimicrobial agents
- 29 Aldehyde
- 30 Passive immunity

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN DENTAL
MECHANICS (DDM)
TIME: 1Hrs30Mins (RS -1 SCHEME) MAX. MARKS: 45**

QP CODE:2172, APPLIED ORAL ANATOMY

- I. LONG ESSAY - ANSWER ANY ONE 1 X 10 = 10**
- 1) Describe the anatomy of maxillary first permanent molar.
 - 2) Write in detail about the supporting and limiting structures of mandibular denture bearing area
- II. WRITE SHORT NOTES ON ANY FIVE 5 X 5 = 25**
- 3) Muscles of mastication
 - 4) Posterior palatal seal area
 - 5) Mandibular nerve
 - 6) Tooth carving.
 - 7) Balanced occlusion
 - 8) Tooth numbering system
 - 9) Overjet and overbite
- III. WRITE SHORT ANSWERS 5 X 2 = 10**
- 10) Hamular notch
 - 11) Dentolabial sound
 - 12) Rugae
 - 13) CPC line
 - 14) Muscles of soft palate

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA IN DENTAL MECHANICS(DDM)
TIME: 1Hrs30Mins (RS -2 SCHEME) MAX. MARKS: 50**

QP CODE: 5172, APPLIED ORAL ANATOMY

SHORT ANSWERS- ANSWER ANY FOUR

4 X 5 = 20

1. Describe the anatomy of Permanent Mandibular First Molar
2. Muscles of mastication
3. Teeth Numbering System
4. Temporomandibular joint
5. Structures of Maxillary edentulous arch.

SHORT NOTES

10 X3 = 30

6. Parts of Tooth
7. Muscles of Tongue
8. Periodontal ligament
9. Parotid duct.
10. Curve of Spee
11. Retromolar pad
12. Incisive papilla.
13. Posterior palatal seal area
14. Overjet and Overbite
15. Mandibular movements.

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SUPPLY EXAMINATION APRIL 2024

II YEAR DIPLOMA IN DENTAL HYGIENE (DDH)

TIME: 1 Hrs 30Mins

(RS -2 SCHEME)

MAX. MARKS: 50

QP CODE:5183

SECTION A: GENERAL PATHOLOGY & MICROBIOLOGY

I. SHORT NOTES ANSWER ANY FOUR QUESTIONS

4 X 5 = 20

1. Define inflammation and describe the vascular events of acute inflammation?
2. Enumerate the investigations done in Microbiology laboratory?
3. What is Leukoplakia? Mention its causes.
4. Organisms causing dental caries? Write its complications.
5. Hospital acquired Infections.

II SHORT ANSWERS

5 X 3 = 15

6. Name 3 diseases affecting lung.
7. Mention 4 differences between benign and malignant tumors.
8. Mention 4 viruses of medical importance.
9. Mention four Fungal organisms of medical importance.
10. Oral candidiasis

QP CODE:5184

SECTION B: PHARMACOLOGY

III. Short Essay (Answer any one)

1 X 5 = 5

11. Classify routes of drug administration; write the advantages and disadvantages of Intravenous route of drug administration.
12. Mention any four Benzodiazepines and write uses and adverse effects of Benzodiazepines.

IV Short Answers.

5 X 2= 10

13. Name 2 Local anaesthetics used for spinal anaesthesia.
14. Mention two uses of Gentamicin.
15. Mention two antiseptic mouth gargles used in Dentistry
16. Mention two uses of Corticosteroids.
17. Mention two drugs used as Analgesics.

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SUPPLY EXAMINATION APRIL 2024**

I YEAR DIPLOMA IN PHYSIOTHERAPY (DPT)

TIME: 3Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE:4193

SECTION A: PHYSIOLOGY

I. SHORT NOTES (ANSWER ANY FOUR)

4 x 5 = 20

1. Describe the functions of Juxta glomerular apparatus , with a neat labelled diagram
2. Describe the Phases of menstrual cycle.
3. Define Cardiac output. Give the normal value and explain the regulation.
4. Body fluid compartments.
5. Functions of skin

II. SHORT ANSWERS

10 x 3=30

6. Name the transport mechanisms across the cell membrane.
7. Draw a neat labeled diagram of normal ECG.
8. Define anaemia. Name the types of anaemia.
9. Draw a neat labelled diagram of neuro muscular junction.
10. Functions of basal ganglia.
11. Non respiratory functions of lungs.
12. Heart sounds.
13. Describe the Taste pathway.
14. Functions of Oxytocin.
15. Name three functions of Growth hormone.

QP CODE: 4194

SECTION B: BIOCHEMISTRY

III. Short notes (answer any four questions).

04 x 05 = 20

16. Define carbohydrates. Give classification with examples.
17. Classification of proteins with examples.
18. Write the functions and deficiencies of vitamin A.
19. Renal function test.
20. Detoxification.

IV. Short answers.

10 x 03 = 30

21. Denaturation.
22. Polysaccharides.
23. Lipid profile.
24. Functions of lysosomes.
25. Scurvy.
26. Kwashiorkor.
27. Define enzymes. Give two examples of diagnostic enzymes.
28. Creatinine clearance test.
29. Balanced diet.
30. Essential fatty acids.

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**PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL 2024**

III YEAR DIPLOMA IN PHYSIOTHERAPY (DPT)

TIME: 3Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 6193, P.T IN TRAUMATOLOGY & ORTHOPAEDICS

SHORT NOTES – ANSWER ANY EIGHT

(8x5=40)

1. What is Ankylosing Spondylosis? Discuss Its PT management.
2. Discuss hand injuries? Explain mechanism of injury, clinical features and PT management.
3. Define Torticollis and write about its PT management.
4. Discuss etiology, clinical features and surgical management of CTEV.
5. Write about assessment and PT management of Lateral Epicondylitis.
6. What is Pathological fracture ? Write its causes and management.
7. Classify Bone Tumours. Mention clinical features and surgical management of Giant Cell Tumour.
8. Write about indications of Total Hip Replacement and its management.
9. Write about different types of external fixators.
10. Discuss Spinal Canal Stenosis with regard to its causes, clinical features and management.

SHORT ANSWERS

(20x3=60)

11. Charcot joint.
12. PT management of Radial Nerve Injury due to fracture of shaft of humerus.
13. Benefits of Closed Kinematic Chain Exercises.
14. Hangman's fracture.
15. Myositis Ossificans.
16. Patellectomy and its management.
17. Differentiate Osteomalacia and Osteopenia.
18. Define subluxation with example.
19. Bursitis and its management.
20. Gas gangrene.
21. Contractures.
22. Deformities in Rheumatoid Arthritis.
23. Scoliosis.
24. Skeletal Traction.
25. Causes of Limb Length Discrepancy and methods of its assessment.
26. CTEV.
27. PT assessment of Piriformis Syndrome.
28. Dermatomes and Myotomes.
29. PT management for Phantom Limb Pain.
30. Osteosarcoma.

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**PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL 2024**

**II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN MEDICAL
LABORATORY TECHNOLOGY (DMLT)**

TIME: 3 Hrs (RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 3102, PATHOLOGY

I. Long Essay : (Answer any two)

2x10=20

1. Discuss about normal coagulation cascade. Write in brief about PT and APTT (5+5)
2. List different types of hematoxylin. Discuss in detail Hematoxylin and Eosin staining procedure (3+7)
3. Discuss donor selection criteria for blood donation. Add a note on infectious diseases screening in blood bank (6+4)

II. Short Essay : (Answer any ten)

10x5=50

4. Major cross matching
5. Organization of blood bank
6. Draw a neat diagram of sperm. Mention the normal values in semen analysis
7. Demonstration of Barr bodies
8. Mention sites of bone marrow aspiration. Write briefly staining of bone marrow aspiration smear using Leishman stain
9. Coombs cross matching
10. CSF analysis
11. Osmotic fragility test
12. Microwave tissue processing
13. What is biomedical waste? Discuss in brief color coding system used for disposal.
14. Cryoprecipitate
15. Mounting of museum specimen

III. Short Answer:

10x2=20

16. Embedding
17. Mention Two methods of blood grouping
18. List two blood transfusion reactions
19. List two causes of eosinophilia
20. Two tests for diagnosis of sickle cell anemia
21. Mention two Romanowsky stains
22. Two indications of frozen section
23. Mention two minor blood group systems
24. Fibrin degradation products
25. Two indications for sputum examination

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SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY(DMLT)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE:6103, PATHOLOGY

SHORTNOTES:ANSWER ANY EIGHT

8x5=40

1. Discuss prothrombin time
2. List the criteria for blood donor selection. Write briefly on blood donors counseling
3. Draw a sickle cell RBC. Briefly describe the procedure of sickling test.
4. Write in brief about mounting of museum specimens
5. List different types of hematoxylin stain. Write the steps of H&E staining.
6. Biomedical hospital waste management
7. Write briefly about fixation of tissues in histopathology. Add a note on Section cutting
8. Write briefly about discarding of blood products. List the infections screened in the blood bank to make the blood bag safe..
9. Preparation of peripheral smear and steps of leishman staining. Discuss briefly about Ideal peripheral smear.
10. Vitamin D deficiency

SHORT ANSWERS

20x3=60

11. Coombs test
12. Normal hemoglobin values in adults. List 2 methods of hemoglobin estimation
13. Draw a neat labeled diagram of normal sperm
14. Discuss in brief about paraffin wax in histopathology
15. Forward blood grouping
16. Laboratory information system
17. Discuss briefly about segregation of biomedical wastes in various biomedical waste disposal bags
18. Bleeding time
19. Name 3 clearing agents
20. List errors in section cutting and its corrections
21. List various blood components stored in blood bank
22. List 3 instruments which are calibrated in a clinical laboratory
23. PAS stain
24. Bombay blood group
25. AFB staining
26. Composition of Leishman stain
27. Neubauer counting chamber
28. Mention 3 special stains
29. Draw any 3 types of WBC and label it
30. Separation of components in blood bank

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN HEALTH INSPECTOR (DHI)**

QP CODE: 3112, COMMUNITY MEDICINE-II

TIME : 3 hour

Max Marks : 90

I. Long Essay – Answer any TWO 2X10=20

1. Define health education. Discuss in detail various types of communication.
2. Describe the causes of maternal mortality in India .Add a note on its prevention
3. Define Family planning. Discuss in detail about terminal methods of contraception

II. Write short notes on any TEN 10 X 5=50

- 4 Risk approach
- 5 Postnatal Complications
- 6 Juvenile Delinquency
- 7 Uses of Growth chart
- 8 Causes for Infant mortality rate
- 9 Factors affecting fertility
- 10 Demographic cycle
- 11 Child abuse
- 12 Behaviour problems children
- 13 School health appraisal
- 14 Low birth weight
- 15 Health problems of the aged people

III. Write short answers 10X2=20

16. Internet
17. Domiciliary care
18. Weaning
19. Audio-visual aids
20. Eligible couple
21. Danger signals in intranatal care
22. Mala-N
23. Abortion
24. Growth rate
25. Sex ratio

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SUPPLY EXAMINATION APRIL 2024**

IIIYEARDIPLOMA IN HEALTH INSPECTOR (DHI)

TIME: 3 Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 6113, COMMUNITY MEDICINE PAPER-2

I. SHORT NOTES: ANSWER ANY EIGHT

8X5=40

1. Enumerate the common Problems among the Elderly.
2. Enumerate the various Barriers in Communication.
3. Discuss Complementary Feeding.
4. Discuss in brief the Audio Visual Aids used in Health Education.
5. Discuss the School Health Services in brief.
6. Enumerate the Common Health Problems among Adolescents and its Preventive Measures.
7. Discuss the Health Problems of Street Children and their Preventive Measures.
8. Mention the Advantages and Disadvantages of Intra-Uterine Devices (IUCDs).
9. Enumerate the Causes and Preventive Measures of Juvenile Delinquency.
10. Enumerate the various Methods of Health Education. Explain any one in detail.

II. SHORT ANSWERS

20X3=60

11. Discuss Mid-Day School Meal.
12. Enumerate any two Advantages of using Oral Contraceptive Pills.
13. Enumerate any three Benefits of Breastfeeding.
14. Role of ASHA in Antenatal Care.
15. Discuss the Preventive measures in Child Labour.
16. Enumerate any three Job responsibilities of an Anganwadi Worker.
17. Enumerate three DO's and DONT's in a Pregnant Lady.
18. Enumerate the Role of Medical Social Worker (MSW) in Antenatal and Postnatal Care
19. Enlist any three causes of Population Explosion.
20. Discuss the Benefits of Role Play in Health Education.
21. Discuss Eligible Couple.
22. Enlist any three causes of Low-Birth-Weight Babies.
23. Enlist any three types of High-Risk Mother's.
24. Enumerate three causes of Maternal Mortality
25. Enumerate any three causes for Medical Termination of Pregnancy.
26. Discuss in brief the Disability Benefits under the ESI Act.
27. Discuss the salient feature of Dowry Prohibition.
28. Discuss the importance of Thayi Card/ Mother's Card.
29. Discuss the importance of Iron and Folic acid tablets consumption during Pregnancy.
30. Explain the importance of Information, Education & Communication (IEC).

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN MEDICAL X-RAY
TECHNOLOGY(DMXT)**

TIME: 3Hrs (RS -1 SCHEME)

MAX. MARKS: 90

**QP CODE: 3122, RADIOGRAPHY INCLUDING MEDICAL
RECORDS**

I. LONG ESSAY - ANSWER ANY TWO

2X10=20

1. Describe the procedure and technique of HSG.
2. PACS
3. Components of CT and explain slip ring technology.

II. WRITE SHORT NOTES ON ANY TEN

10X5=50

4. Shoulder axial view
5. IVU
6. Chest X-ray
7. Barium meal
8. Judet's view
9. WATERS view
10. T-tube cholangiography
11. Fistulography
12. Bronchography
13. Venography
14. AUG
15. Sonogram

III. WRITE SHORT ANSWERS

10X2=20

16. Barium Sulphate
17. Write full form of DSA and MRI
18. Mobile Radiography
19. Indication of Aortography
20. Apicogram
21. Loopogram
22. Scout film
23. Scaphoid view
24. Carpal bones
25. MCU.

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SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN MEDICAL IMAGING TECHNOLOGY(DMIT)
TIME: 3Hrs (RS -2 SCHEME) MAX. MARKS: 100
QP CODE: 6123 SPECIAL PROCEDURES, RADIOGRAPHIC
PHOTOGRAPHY & MEDICAL RECORDS**

SHORT NOTE- ANSWER ANY EIGHT

8X5=40

1. Role of MRI in CNS investigation
2. Explain post operative T tube cholangiography
3. Intravenous urography
4. Explain barium enema
5. Mammography
6. Peripheral venography
7. Write a note on contrast media
8. MCU
9. HSG
10. Bronchography

SHORT ANSWERS

20X3=60

11. Ultrasonography scanning
12. Mobile radiography
13. Tomography
14. Foreign body localization
15. Percutaneous nephrostomy
16. Oral cholecystography
17. Arthrography
18. Sialography
19. Dacrocystography
20. ECG
21. Ascending urethrography technique
22. Uses of ultrasound scan in urinary system
23. Regional arteriography
24. Lymphangiography
25. Uses of digital subtraction radiography
26. Role of CT as special investigation in respiratory tract
27. Forensic radiography
28. Hypotonic duodenography
29. Uses of barium studies
30. Name three instruments used in arteriography

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN OPERATION
THEATRE TECHNOLOGY(DOTT)
TIME: 3Hrs (RS -1 SCHEME) MAX. MARKS: 90**

QP CODE: 3132, OPERATIVE PROCEDURE

LONG ESSAY-ANSWER ANY TWO

2x10=20

1. Describe Abdominal Incisions with Diagrams for various abdominal procedures
2. Explain causes for chest trauma. Explain ICD procedure with diagram
3. What is ambulatory surgery? Describe advantages and procedures done in an ambulatory surgery.

SHORT NOTES -ANSWER ANY TEN

10x5=50

4. Colostomy care
5. What is transplantation? Describe the types of transplantation
6. Skin Grafting.
7. Common operations in the urinary tract
8. Gangrene toe
9. T.U.R.P
10. Closed reduction
11. Suction drain
12. Robotic surgery
13. Diabetic foot care
14. Emergency LSCS
15. Biopsy

SHORT ANSWERS

10x2=20

16. Babcock's forceps
17. Sitz bath
18. Hand Sanitizer.
19. Lipoma
20. Laryngoscopes
21. Circumcision
22. Bowel preparation
23. Universal precautions of surgery
24. Abdomen drain
25. Keloid

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SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN OPERATION THEATRE & ANAESTHESIA
TECHNOLOGY(DOT & AT)**

TIME: 3Hrs (RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 6133 OPERATIVE PROCEDURES

SHORT NOTES: ANSWER ANY EIGHT

8x5=40

1. Appendicectomy
2. Treatment for liver abscess
3. Complications of thyroidectomy
4. Complications of colostomy
5. M.T.P
6. Tracheostomy
7. Biopsy
8. Mesh repair
9. Skin graft
10. Abscess drainage

SHORT ANSWERS

20 x3=60

11. Corrugated rubber drain
12. Suction drain
13. Enema.
14. Aspirations
15. Hand washing
16. Keloid
17. Ultrasound
18. Cataract surgery
19. ICD
20. Straight scissor
21. Cast application
22. Pilonidal sinus
23. Burst abdomen
24. Foreign body in nose
25. Fasciotomy
26. Prolene suture
27. Foley's catheter
28. Splints
29. Endoscope
30. Scrotal abscess

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN MEDICAL
RECORDS TECHNOLOGY(DMRT)
TIME: 3Hrs (RS -1 SCHEME) MAX. MARKS: 90**

QP CODE: 3142, HOSPITAL ADMINISTRATION

LONG ESSAY-ANSWER ANY TWO

2x10=20

- 1 Define Hospital. Classify Hospital. Write in detail, functions of district hospital. (2+3+5)
- 2 Write organisation and functions of purchase committee. (4+ 6)
- 3 Define management. Write in detail the qualities and functions of hospital administrator.(2+8)

SHORT NOTES -ANSWER ANY TEN

10x5=50

- 4 Inventory control.
- 5 Write functions of dietary department.
- 6 Write importance and functions of mortuary services.
- 7 Duties and responsibilities of nurse.
- 8 Write role and functions of accident and emergency services.
- 9 Medical record department.
- 10 Write functions of laboratory services.
- 11 Write in detail fire protection in hospital.
- 12 Write functions of central sterile service department (CSSD) department.
- 13 Write functions of housekeeping department.
- 14 Write functions of pharmacy department.
- 15 Medical audit.

SHORT ANSWERS

10x2=20

- 16 Role of computers in Medical Record Department.
- 17 Write about Registration counter in Out Patient Department.
- 18 Infection Control Committee.
- 19 Mention three functions of paramedical worker.
- 20 Write management of sharp wastes.
- 21 Write two functions of radiology department.
- 22 Write two functions of ambulance services.
- 23 Write about two bin system.
- 24 Write two points for need of essential drugs.
- 25 Motivation.

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III YEAR DIPLOMA IN MEDICAL RECORDS TECHNOLOGY(DMRT)
TIME: 3Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE: 6143, HOSPITAL ADMINISTRATION

SHORTNOTES:ANSWER ANY EIGHT

8x5=40

1. Plan for dietary services in a district hospital
2. Nursing Superintendent - Functions
3. Safe Injection practices
4. Planning of NICU in a district hospital.
5. Laundry Services.
6. Patients' rights and responsibilities
7. Responsibilities of Hospital Administrator
8. Central Sterilization Service Department
9. Fire safety in hospitals
10. Role of Medical Record Officer

SHORTANSWERS

20x3=60

11. Hospital death rate.
12. Dress code in hospital.
13. Average Daily Census
14. Laboratory Services in a Hospital.
15. Functions of an electrician in hospital.
16. Triage in Emergency
17. Mortuary
18. High alert drugs in pharmacy.
19. Components of a Radiology Unit.
20. Helpdesk in hospital - Uses
21. Sewage treatment plant.
22. Functions of housekeeping supervisors.
23. Three Functions of Medical Superintendent.
24. Health Insurance.
25. Role of Health bullet during COVID 19 pandemic.
26. Administrative organization in a district hospital
27. Labour Ward
28. Categories of Bio-Medical waste management.
29. Importance of medical record section in a hospital
30. Electric generators in hospitals.

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA/ III YEAR CERTIFICATE COURSE IN DIALYSIS
TECHNOLOGY(DDT)**

TIME: 3 Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

QP CODE 3152

**RENAL REPLACEMENT THERAPY OTHER THAN HEMODIALYSIS AND PATIENT
TEACHING**

LONG ESSAYS – ANSWER ANY TWO

2 X 10 =20

1. Write a note on SLED – SLOW LOW EFFICENCY DIALYSIS.
2. What is peritoneal dialysis ? What are the indications of peritoneal dialysis?
3. Composition of dialysis team and functions of each member of dialysis team.

SHORT NOTES – ANSWER ANY TEN

10 X 5 =50

4. Waste management in dialysis unit
5. Replacement fluids in plasmapheresis
6. Disinfectants used for dialyzer reprocessing
7. Nutritional support in a hemodialysis patient
8. Complications of plasmapheresis
9. Iron therapy in CKD patient
10. Maintenance of record book in patients of hemodialysis.
11. Note on hemoperfusion and its applications
12. Various solutions in peritoneal dialysis
13. Causes of intradialytic hypotension
14. Causes of peritonitis
15. Erythropoietin

WRITE SHORT ANSWERS

10 X 2 =20

16. Name two poisons removed by hemodialysis
17. Name two modes of replacement fluid infusion in CRRT
18. Mention two important tests for cardiac evaluation of hemodialysis patients
19. Name two infections which can be transmitted during hemodialysis
20. Anatomy of kidney
21. Reverse osmosis
22. Priming of dialyzer
23. Name two renal function tests
24. Normal values of bleeding time and clotting time
25. Mention two acute complications of hemodialysis

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SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN DIALYSIS TECHNOLOGY(DDT)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE: 6153, DIALYSIS PAPER-2

I. Short notes Answer any eight questions

8x5=40

1. Explain non infectious complications of peritoneal dialysis.
2. Describe the components involved in monitoring ICU dialysis patients.
3. Explain membrane plasma separation technique.
4. Define peritonitis. Explain causes & management of peritonitis.
5. Discuss indications & contraindications of peritoneal dialysis.
6. Define hemoperfusion? Explain indications of hemoperfusion.
7. Define osmosis. Explain factors affecting it.
8. Explain psychological disorders in ESRD patients.
9. Describe anatomy of peritoneal membrane
10. Compare hemodialysis from peritoneal dialysis.

III. Short answers

20x3=60

11. Add a note on inotropes.
12. List & define types of automated peritoneal dialysis.
13. Add a note on exit site infection in peritoneal dialysis.
14. List three drugs removed by hemodialysis.
15. Name three osmotic agents.
16. List the types of catheter insertion techniques.
17. List 3 vaccines given for hemodialysis patients.
18. Name the types of PD transfer sets.
19. Draw a circuit diagram of hemoperfusion.
20. Write composition of peritoneal dialysate.
21. Discuss hemodialysis in post-transplant patients.
22. Write the prescription for SLED.
23. Write job responsibilities of dialysis technician.
24. Define diffusion. List factors affecting diffusion in hemodialysis.
25. List three immunosuppressive drugs.
26. Write diet recommendation in CAPD patients.
27. List three signs & symptoms of peritonitis.
28. List three disadvantages of peritoneal dialysis.
29. List three disadvantages of CRRT.
30. Discuss PD fluid prescription.

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN OPHTHALMIC
TECHNOLOGY(DOT)**

**TIME: 3 Hrs (RS -1 SCHEME) MAX. MARKS: 90
QP CODE: 3162, OPHTHALMOLOGY PAPER-2**

GENERAL INSTRUCTIONS:

Write neat diagram wherever necessary, handwriting should be legible.

I. LONG ESSAY - ANSWER ANY TWO 2 × 10 = 20

1. Explain vision assessment and write in detail the procedure of vision recording
2. Causes for corneal blindness, name different types of keratoplasty and add a note on eye banking
3. Describe screening for Refractive errors in School children under the School health program.

II. SHORT NOTES ANSWER ANY TEN 10 × 5 = 50

4. Disease index
5. Causes of visual impairment and blindness
6. ICD 10
7. Major and minor surgical records
8. Prisms in Ophthalmology.
9. Eye bank
10. Describe nursing care
11. Record maintenance in Cataract surgery
12. Different types of outreach camps
13. Blood pressure
14. Minor surgical procedure
15. Conjunctivitis

III. SHORT ANSWERS 10 × 2 = 20

16. Vital signs in ophthalmology
17. Trail set
18. Vitamin A deficiency
19. Keratomalacia
20. Name 2 antifungal eye drops
21. Name 2 antibiotics used in Eye infections
22. District blindness control society (DBCS)
23. Snellen's chart and its applications
24. Name Two drugs used in Glaucoma.
25. Rehabilitation of blind

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III YEAR DIPLOMA IN OPHTHALMIC
TECHNOLOGY(DOT)**

TIME: 3 Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP code 6163, OPHTHALMOLOGY PAPER 2

Short Answer. Answer any EIGHT

(8X5=40).

1. What are methods to identify shallow anterior chamber?
2. What are consent forms? Describe the contents of consent forms?
3. What is Rehabilitation of blind? Mention the types of rehabilitation.
4. What is an EYE BANK and what are its Function?
5. Describe the role of eye camps in rural population?
6. How is lacrimal syringing done? What is its importance?
7. Write a note on biometry for IOL calculation?
8. Role of protective eye gear at workplace.
9. What is school eye screening? Importance of the same?
10. Importance of medicolegal record maintenance.

Short notes.

(20X3=60)

11. Name 3 Anti fungals used in ophthalmology.
12. 3 methods who want to employ to motivate general public for eye donation.
13. Name 3 causes for redevye.
14. Name 3 causes for painful eye conditions
15. Importance of fundus examination at every visit of a patient.
16. Emergency resuscitation
17. Write a note on Atropine Eye ointment.
18. Three methods of drug administration in ophthalmology.
19. Three causes of loss of window reflex
20. What is dacryocystitis? Name 2 surgeries for chronic dacryocystitis.
21. How do you record distant vision
22. Mention Three causes of Proptosis.
23. What is keratometer? Mention 2 types of keratometer.
24. Mention Three types of anaesthesia used in ophthalmology.
25. Define blindness? Mention types of blindness?
26. Expand NPCB. write 2 goals of NPCB
27. Mention Three myths around eye donation.
28. How to treat anisometropia in school children
29. Name Three groups of anti glaucoma drugs with examples
30. Name Three steroids used in ophthalmology.

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SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN DENTAL MECHANICS (DDM)
TIME: 1Hrs30Mins (RS -2 SCHEME) MAX. MARKS: 50**

QP CODE:6172

**PARTIAL DENTURES, ORTHODONTIA, MAXILLOFACIAL-
PROSTHESIS**

I. WRITE SHORT NOTES - ANSWER ANY FOUR

4 X 5 = 20

- 1) Kennedy's Classification
- 2). Parts of FPD with Diagram
- 3) Mandibular major connectors
- 4) Difference between RPD and FPD.
- 5) Steps in fabrication of RPD

II. WRITE SHORT ANSWERS

10 X 3 = 30

- 6) Labial bow
- 7) Palatal bar
- 8) Minor connector
- 9) Refractory cast
- 10) Obturator.
- 11) Die pins
- 12) Adam's clasp
- 13) Embrasure clasp
- 14) Survey lines
- 15) Sanitary pontic

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SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN DENTAL HYGIENE (DDH)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE:6183

DIAGNOSIS AND TREATMENT OF PERIODONTAL DISEASE

I. SHORT NOTES: ANSWER ANY EIGHT QUESTIONS 8X5=40

1. Write about Oral Hygiene index simplified index.
2. Chemical plaque control agents
3. Ultrasonic and sonic instruments
4. Write about Treatment plan Phases.
5. Periodontal probe.
6. Rules and regulations of dental hygiene
7. Parafunctional habits
8. Periodontal management in Diabetes patients
9. Dental implant maintenance
10. Write in detail about Mechanical plaque control measures

II. SHORT ANSWERS 20X3=60

11. Trauma from Occlusion
12. Dental floss.
13. Definition of Dental Hygiene
14. Objectives of dental hygiene.
15. Oral Irrigation Devices
16. Define dental hygiene.
17. Signs of syncope.
18. Drugs used in Asthma.
19. Special diet for patients in mandibular jaw fracture.
20. Emergency drugs.
21. Precautions to be taken in pregnant women.
22. Gingival massage.
23. Hypertensive patient management in dental practice.
24. Periodontal dressing materials.
25. Desensitizing pastes.
26. Precautions to be taken in HIV infection.
27. Tooth mobility
28. Halitosis management
29. Dental Curettes
30. Precautions to be taken in HBV infection.

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PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL 2024
FIRST YEAR ALL CERTIFICATE COURSES
TIME: 1Hrs 30Mins (RS -1 SCHEME) MAX. MARKS: 45**

QP CODE:1102, CHEMISTRY

I. LONG ESSAY – ANSWER ANY ONE 1 X 10 =10

- 1) Define carbohydrates. Classify carbohydrates with examples. Write a note on carbohydrates as a source of energy (2+5+3)
- 2) What are Halogens? Explain the preparation and properties of chlorine (2+4+4)

II. WRITE SHORT NOTES ON ANY FIVE 5 X 5 =25

- 3) Structure of an Atom
- 4) Tyndall Effect and Brownian movement
- 5) Normality and Molarity
- 6) Merits of Arrhenius Theory
- 7) Properties of Sodium Carbonate
- 8) Radioactive Isotopes –applications in medicine
- 9) Functional properties of hormones and antibodies

III. WRITE SHORT ANSWERS 5 X 2 =10

- 10) Methane is called marsh gas. Give reasons
- 11) Mention 2 applications of p32 radioisotope
- 12) Write 2 differences between DNA and RNA
- 13) Name 2 biological messengers
- 14) What are indicators? Give 2 examples.

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PARA MEDICAL BOARD, BENGALURU

SUPPLY EXAMINATION APRIL 2024

FIRST YEAR ALL DIPLOMA COURSES

TIME: 3Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 4103, CHEMISTRY

I. Short Notes – Answer any EIGHT questions

8 X 5=40

1. What is Plaster of paris? Explain the composition of bone.
2. Mention the pH values of any five biological fluids
3. Define A) Oxidation and B) Reduction. Give one example for each
4. How is Nitric acid manufactured by Ostwalds process.
5. Define pollution. Mention the causes of water pollution
6. Atomic weight and Molecular weight
7. Write the structure of A) Glycine B) Alanine C) Serine D) Aspartic acid E) Tyrosine
8. Describe the preparation of ethyl alcohol from molasses

9. Match the following

A

B

- | | |
|---------------------|--|
| a) Sodium Carbonate | i) NaOH |
| b) Phenol | ii) Na ₂ CO ₃ |
| c) Plaster of paris | iii) C ₆ H ₅ OH |
| d) Caustic soda | iv) C ₂ H ₂ |
| e) Acetylene | v) CaSO ₄ .1/2 H ₂ O |

10. Choose the correct answers

- i). General formula of alkene is a)C_nH_{2n + n} b)C_nH_{2n} c)C_nH_{2n-2} d)C_nH_n
- ii) Methane is
a)saturated aliphatic hydrocarbon b)unsaturated aliphatic hydrocarbon
c)aromatic hydrocarbon d)none of these
- iii) Methyl amine is
a)primary amine b)secondary amine c)tertiary amine d)none of these
- iv) Immunoglobulin is
a) Hormone b) Enzyme c) Antibody d) Transport Agent
- v) Acetylene has Carbon-Carbon
a)single bond b)double bond c)triple bond d)No bond

II. Short Answers.

20 X 3 = 60

11. Define a) Acid b) Base c) Salt. Mention one example for each.
12. Write the structure of a) Benzene b) Toluene
13. Classify carbohydrates.
14. Mention three application of colloids
15. What is caustic soda? Mention 2 uses.
16. Write the structural formula of a)Benzyl alcohol b)Acetaldehyde C)Phenol.
17. Mention different types of RNA and their functions.
18. Distinguish between electrolytes and non - electrolytes
19. Calculate the amount of NaOH required to prepare 100mL of 0.1N NaOH solution.
20. Fill in the blanks
 - i) Formula of formaldehyde is
 - ii) Proteins are the polymers of
 - iii) Lactose is present in
21. Difference between Colloids and Crystalloids.
22. Write a note on Global warming.
23. Mention the atomic weight of elements a) Carbon b) Oxygen c) Sodium
24. What are amines? Give the classification of amines.

Cont..

25. Mention three uses of salicylic acid.
26. Four causes of Air pollution.
27. Mention 3 uses of Acetone.
28. Write Henderson's equation. Mention its application.
29. Define Half life period.
30. Classification of proteins based on composition.

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN MEDICAL LABORATORY
TECHNOLOGY (DMLT)**

TIME: 3 Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 2104, PATHOLOGY

LONG ESSAY – ANSWER ANY TWO

2X10 = 20

1. Discuss different steps in tissue processing in histopathology
2. Discuss physical examination of urine. Add a note on principle and procedure of Benedicts test and Rothera's test. (4+3+3)
3. Discuss CSF examination in detail.

Short Essay : (Answer any ten)

10x5=50

4. Reticulocyte count
5. ESR estimation
6. Differential leukocyte count
7. Anticoagulants
8. Complications of phlebotomy
9. Preparation of Leishman stain and staining of a peripheral smear
10. Microscopy of urine sample
11. List fixatives in histopathology. Write advantages and disadvantages of formalin
12. Red cell indices
13. Different methods of hemoglobin estimation
14. Quality control in hematology
15. Preparation of various buffers

Short Answer:

10x2=20

16. Glassware's used in hematology
17. Name two clearing agents used in histopathology
18. Mention components separated in blood bank from whole blood
19. Draw WBC pipette and label
20. Mention two preservatives used for urine
21. Name and draw two abnormal Red blood cells
22. Two disadvantages of Sahli's method
23. Two causes of increased Clotting time
24. Name two special stains
25. Platelet count

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY (DMLT)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE: 5105, PATHOLOGY

I Short notes, answer any 8 questions

8X5=40

1. Fixatives used in cytology
2. Erythrocyte sedimentation rate
3. Cerebrospinal fluid analysis
4. Discuss principle, procedure and clinical importance of Benedicts test in urine analysis.
5. Anticoagulants
6. Decalcification in histopathology
7. Red blood cell indices
8. Microscopy of stool sample for ova and cyst
9. Differential leukocyte count – equipment's used and procedure
10. Packed cell volume

II Short answers

20x3=60

11. Ideal peripheral smear
12. Preservatives of urine
13. Write about preparation and staining of sputum smear.
14. Dipstick method in urine analysis
15. Name the RBC diluting fluid with composition.
16. Master register in histopathology
17. List three methods of hemoglobin estimation
18. Draw a neat labelled diagram of neutrophil. List two causes of increased neutrophil.
19. Name 3 stains used in histopathology
20. Wintrobe's tube
21. Draw a neat labelled diagram of sperm. Mention normal sperm count
22. Draw and label three abnormal erythrocytes
23. Barr bodies.
24. Steps in grossing of histopathological specimen
25. ZN staining
26. Preservation of urine
27. Master register in blood bank
28. Complete blood count analysis
29. Write a note on reticulocyte stain
30. Write the procedure to stain the slide with Leishman stain

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN HEALTH INSPECTOR (DHI)
TIME: 3 Hrs (RS -1 SCHEME) MAX. MARKS: 90**

Q P CODE - 2112 COMMUNITY MEDICINE (PAPER - II)

I. Long Essay - Answer Any TWO 2×10=20

1. Enumerate the causes of Air pollution. What are the Hazards? How do you prevent them? (2+5+3)
2. What is Fortification? Give four examples of Fortified Food. Name four advantages of Food Fortification. (2+4+4)
3. Enlist the Water-Borne Diseases. How will you prevent the Water pollution? (4+6)

II. Write short notes on any TEN 10×5=50

4. Enumerate the Diseases carried by Contaminated Milk. How will you prevent them?
5. Explain life cycle of House fly and the Disease Transmitted and Preventive measures.
6. Enumerate the various Measures of Water Conservation.
7. Swimming Pool Sanitation.
8. Sickness Absenteeism.
9. Enumerate the effect of Overcrowding on Health.
10. Enumerate the Health Problems of our Agricultural Workers.
11. Describe Holistic Approach in Health.
12. Describe Global Warming.
13. Describe the criteria for Healthful Housing.
14. Describe the effect of Iodine Deficiency in the body. How will you prevent it?
15. Effect of Urbanisation and Industrialisation on Health.

III. Write short answers 10×2=20

16. Enumerate the advantages of consuming Eggs.
17. Household Method of Water Purification.
18. Advantages of consuming Fruits.
19. Write any two Manifestations of Fluorosis.
20. Define Pneumoconiosis. Give three examples.
21. Mention any three Diseases Transmitted by House fly.
22. Enlist any three Iron Rich Food.
23. Define Solid Waste. Give three examples.
24. Define Residual Chlorine.
25. Enlist any three diseases caused due to Excess Fat Consumption.

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SUPPLY EXAMINATION APRIL 2024**

II YEAR DIPLOMA IN HEALTH INSPECTOR (DHI)

TIME: 3 Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 5113, COMMUNITY MEDICINE PAPER-2

I. SHORT NOTES: ANSWER ANY EIGHT

8X5=40

1. Write three advantage and disadvantage of ground water.
2. Explain the various mosquito control measures
3. Explain various methods of anti-rodent measures
4. Zoogoneal layer.
5. Explain various methods of control of housefly.
6. Disinfection of well.
7. Explain various methods of house hold purification of water.
8. Bangalore method of composting.
9. Mention five health hazards of improper disposal of solid waste
10. Sanitary Barrier

II. SHORT ANSWERS

20X3=60

11. Bio toilet
12. Mention three diseases transmitted by Hard tick
13. Mode of spread of Scabies
14. Health hazards of improper sewage disposal
15. Effects of climate change.
16. Write disease transmitted because of poor housing.
17. Write effects of Noise exposure.
18. Mention three methods of artificial ventilation
19. Mention prevention and control of Air pollution
20. Mention three methods of water conservation.
21. Write any three indicators of housing.
22. Treatment of lice infestation
23. Write three diseases transmitted by house fly
24. Control of house fly
25. Effects of Heat stress
26. Fluorosis
27. Orthotolidine test
28. Sulabh shauchalaya
29. Write any three Latrines suitable for camps
30. Write effects of radiation.

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN MEDICAL X-RAY
TECHNOLOGY(DMXT)**

TIME: 1Hrs 30 Mins (RS -1 SCHEME)

MAX. MARKS: 45

QP CODE: 2123, PHYSIOLOGY

I. Long essay- Answer any ONE. 1x10=10

- 1) Define Cardiac cycle. Mention the events of cardiac cycle. Explain ventricular events.
- 2) Name the anterior Pituitary hormones. List the functions of Growth hormone and add a note on Gigantism.

II. Write short notes on any FIVE. 5x5=25

- 3) Composition and functions of Saliva.
- 4) Explain the structure of a Cell membrane, with a neat diagram.
- 5) Draw a labelled diagram of normal ECG. Write the normal value of PR interval.
- 6) Define Hypoxia and Classify Hypoxia .
- 7) Composition and functions of plasma proteins.
- 8) Functions of Hypothalamus.
- 9) Rickets.

III. Short answers 5x2=10

- 10) Name two cranial nerves.
- 11) Name any two refractory errors of eye.
- 12) Write the normal values of
 - a) ESR .
 - b) Platelet count .
- 13) Write any two functions of skin.
- 14) Name the two bile pigments.

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA IN MEDICAL IMAGING TECHNOLOGY (DMIT)
TIME: 1Hr 30 Min (RS -2 SCHEME) MAX. MARKS: 50**

QP CODE: 5124, PHYSIOLOGY

I. SHORT NOTES (ANSWER ANY FOUR)

4 x 5 = 20

- 1) Glomerular filtration rate
- 2) State Landsteiners 's law.
- 3) Explain the hormonal control of Different phases of menstrual cycle.
- 4) Functions of liver.
- 5) Functions of Cortisol.

II. SHORT ANSWERS

10 x 3=30

- 6) Define ESR. Give its normal value.
- 7) What is rickets
- 8) Properties of Cardiac Muscle.
- 9) Light reflex.
- 10) Functions of saliva.
- 11) Functions of Bile.
- 12) Heart Sound causes.
- 13) Goiter.
- 14) Bleeding Time.
- 15) Functions of ovaries.

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN OPERATION THEATRE
TECHNOLOGY (DOTT)
TIME: 3Hrs (RS -1 SCHEME) MAX. MARKS: 90**

QP CODE: 2135, SECTION A: ANATOMY

I. Long Essay (Any 1) 1 x 10 = 10

1. Name the parts of Respiratory System. Describe Lungs in brief. (5+5)
2. Name of the parts of the Nervous System . Draw and label a Neuron. (5 + 5)

II. Short Notes (Any 5) 5 x 5 = 25

3. Liver
4. Urinary Bladder
5. Kidney
6. Name the Endocrine glands. Write a note on Pituitary Gland.
7. Classify the Types of Joints with examples.
8. Tongue
9. Name the parts of Male Reproductive System

III. Short Answers 5 x 2 = 10

10. Deltoid Muscle
11. Name the Ear Ossicles
12. Name two Muscles of Lower Limb
13. Name four bones of Upper Limb
14. Name the salivary glands

QP CODE: 2136, SECTION B: PHYSIOLOGY

IV. Long essay-answer any one 1x10=10

- 15) Describe in detail the clotting mechanism.
- 16) Classify leucocytes. Describe their morphology and add a note on its functions.

V. Write short notes on any five. 5x5=25

- 17) Functions of Liver.
- 18) Explain the chemical regulation of respiration.
- 19) Draw a neat labelled diagram of Cell.
- 20) Homeostasis.
- 21) Active transport.
- 22) Draw a neat diagram of ECG and list the uses of ECG.
- 23) Properties of skeletal muscle.

VI. Short answers 5x2=10

- 24) List 2 functions of bile.
- 25) Write normal value of Bleeding time and Clotting time.
- 26) List 2 functions of Skin
- 27) Name any two lung volumes.
- 28) List 2 types of Lymphocytes

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA IN OPERATION THEATRE & ANAESTHESIA TECHNOLOGY
(DOT & AT)
TIME: 3Hrs (RS -2 SCHEME) MAX. MARKS: 100
QP CODE: 5136, SECTION A: ANATOMY**

SHORT ANSWERS- ANSWER ANY FOUR

4 X 5 = 20

1. Describe Heart in detail
2. Classify Joints with example.
3. Describe Spleen
4. Describe Hyaline cartilage
5. Describe Liver in brief

SHORT NOTES

10 X3 = 30

6. Mention 3 Endocrine glands.
7. What is lumbar puncture? Mention at which level of vertebra it is done?
8. Mention coverings of brain
9. Structure of Cell
10. Define Anatomical position
11. Name any 3 cranial nerves
12. Name different parts of small intestine
13. Name the parts of Brain stem
14. Name the Ear ossicles
15. Name different parts of Central nervous system

QP CODE: 5137, SECTION B: PHYSIOLOGY

SHORT NOTES (ANSWER ANY FOUR)

4 x 5 = 20

16. Intrinsic pathway of coagulation.
17. E.C.G
18. Shock
19. Explain in brief the stages of Deglutition.
20. Functions of Saliva.

SHORT ANSWERS

10 x 3=30

21. Define ESR, mention its normal value
22. Define blood pressure and write its normal value
23. Functions of Liver.
24. Cyanosis.
25. Structure of Neuron.
26. Functions of Bile.
27. Give Normal Values of bleeding time and clotting time.
28. Cretinism.
29. Presbyopia.
30. Name 3 Contraceptive methods in female

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN MEDICAL RECORDS
TECHNOLOGY (DMRT)**

TIME: 3Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 2145, HOSPITAL STATISTICS & BIOSTATISTICS

LONG ESSAY-ANSWER ANY THREE

3x10=30

1. Define Statistics. Write down Functions and Limitations of statistics
2. Explain Mean Deviation and Standard Deviation with its merits and Demerits
3. Define Sampling. Explain different sampling methods.
4. Define Hospital Death Rate, Bed Occupancy Rate and Bed Turn Over Interval.

SHORT NOTES -ANSWER ANY TEN

10x5=50

5. Frequency Distribution
6. Histogram
7. Vital Statistics
8. Crude Birth rate and Crude Death rate
9. Admission and Discharge
10. Mean and Median
11. Range and Quartile deviation
12. Qualitative Classification with example
13. Bar Diagram
14. Average Daily Census and Hospital Autopsy rate
15. General format of table

SHORT ANSWERS- ANSWER ANY FIVE

5x2=10

16. Geographical classification
17. Tabulation
18. Population
19. Data and its types
20. Infant Mortality rate
21. Pie Chart

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SUPPLY EXAMINATION APRIL 2024**

**II YEAR DIPLOMA IN MEDICAL RECORDS TECHNOLOGY(DMRT)
TIME: 3Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE: 5146, HOSPITAL STATISTICS & BIOSTATISTICS

SHORT NOTES: ANSWER ANY EIGHT

8x5=40

- 1 Define Mean. Write down its Merits and Demerits
- 2 Bed Occupancy Rate and Average Length of Stay.
- 3 Define Variable and its types with example.
- 4 Explain Simple Random Sampling
- 5 Define Standard Deviation. Write down its Merits and Demerits.
- 6 Infant Mortality rate and Maternal Mortality Rate.
- 7 Calculate Median for the following data: 24,32,19,27,44,73,39,41,35.
8. Explain Histogram.
- 9 Define Tabulation. Draw the general format of Table
- 10 The vital events for a town for 2022 are as follow Total live birth : 2000 ,
Total deaths : 750, Mid year population is 2,00,000. Calculate Crude Birth rate
and Crude Death rate

SHORT ANSWERS

20 x3=60

- 11 Sample
- 12 Systematic random Sampling
- 13 Mode
- 14 Mean Deviation
- 15 Bar Diagram
- 16 Data and its types
- 17 Qualitative Classification
- 18 Average Daily Census.
- 19 Cause Specific death rate.
- 20 Admission,
- 21 Sampling
- 22 Statistics
- 23 Population.
- 24 Hospital Death rate.
- 25 Anaesthesia Death rate.
- 26 Pie Chart.
- 27 Caesarean Section rate.
- 28 Geographical Classification.
- 29 Bed turn over interval
- 30 Range.

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN DIALYSIS
TECHNOLOGY(DDT)**

TIME: 3 Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 2155, SECTION A: ANATOMY

I. Long Essay (Any 1)

1 x 10 = 10

1. Describe the Heart under the following headings:
(a) Chambers (b) Covering (c) Blood Supply. (4+2+4)
2. Name the parts of the ear and explain middle ear in detail

II. Short Notes (Any 5)

5 x 5 = 25

3. Nephron
4. Eye ball
5. Liver
6. Pancreas
7. Testis
8. Cardiac cycle

III. Short Answers

5 x 2 = 10

9. Name the 3 parts of adrenal cortex.
10. Name the cartilages of Larynx.
11. Name the Ventricles of Brain
12. Name two Veins of Upper Limb
13. Name any two Muscles of Lower Limb.

QP CODE: 2156, SECTION B: PHYSIOLOGY

IV. LONG ESSAY- ANSWER ANY ONE

1 x 10 = 10

14. Name the hormones of anterior pituitary? Describe the functions of Growth hormone.
(2+8)
15. Describe the process of Urine formation.

V. Short essays, Answer any FIVE.

5X5=25

16. List the adverse reactions of mismatched blood transfusion.
17. Non renal functions of kidney.
18. Functions of Plasma proteins.
19. Role of anti diuretic hormone (ADH) in water balance
20. Spermatogenesis.
21. Describe the phases of cardiac cycle.
22. Explain the composition and functions of saliva.

VI. Short answers

5x2=10

23. Give the normal values of a) Serum urea b) Serum creatinine
24. Draw a neat labelled diagram of action potential.
25. Name two organ systems involved in Acid Base balance
26. Name any two types of muscles
27. Give the normal values of a) Platelet count b) WBC count

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SUPPLY EXAMINATION APRIL 2024**

II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY(DDT)

TIME: 3 Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 5155

SECTION A: ANATOMY

I SHORT ANSWERS- ANSWER ANY FOUR

4X5=20

1. Classify Bones with Examples
2. Write a note on Urinary Bladder
3. Draw a Labelled diagram of Nephron
4. Describe the chambers of the Heart
5. Name the Endocrine Glands. Write a note on Thyroid gland.

II SHORT NOTES

10 X3 = 30

6. Name the movements at Synovial Joints.
7. Ureter
8. Name the parts of Stomach
9. Mention 3 arteries of Upper Limb
10. Transitional Epithelium
11. Parts of male Reproductive System
12. Name the Ear ossicles
13. Mention parts of Small Intestine
14. Name the Lymphoid Organs
15. Blood supply of Kidneys

QP CODE: 5156

SECTION B: PHYSIOLOGY

III. SHORT NOTES (ANSWER ANY FOUR)

4 x 5 = 20

16. Functions of placenta.
17. List the hormones of thyroid gland & Name the Functions of Thyroid hormone.
18. Properties of cardiac muscle.
19. Composition and functions of pancreatic juice.
20. Describe the factors regulating glomerular filtration rate (GFR).

IV. SHORT ANSWERS

10 x 3=30

21. List any three Indications of blood transfusion.
22. Draw a neat labeled diagram of normal ECG.
23. Write the Normal Values of cardiac output and BP.
24. Types of Hypoxia.
25. Give the normal values of a). Pulse rate b). Platelet count c). ESR
26. Name any three plasma proteins.
27. Name the permanent methods of contraception in males and females.
28. Name the different types of taste sensation.
29. List any three differences between skeletal muscle and cardiac muscle.
30. Name the different types of White blood cells.

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SUPPLY EXAMINATION APRIL 2024**

II YEAR DIPLOMA IN DENTAL HYGIENE (DDH)

TIME: 1 HR 30MIN

(RS -2 SCHEME)

MAX. MARKS: 50

QP CODE: 5185, SECTION-A, BIOCHEMISTRY

I. SHORT NOTES.

2 ×5=10

1. Classify carbohydrates with examples
2. Plasma proteins- definition, classification and reference values

II. SHORT ANSWERS.

5×3=15

3. Milk sugar
4. Deficiency diseases of vitamin A
5. Define nucleoside and nucleotide
6. Mention the normal values of a)Blood urea and b) serum creatinine
7. Essential amino acids.

QP CODE: 5186, SECTION -B RADIOLOGY

III LONG ESSAY

2X5=10

8. Write about radiation hazards and protection.
9. Write in detail about Paralleling technique.

IV WRITE SHORT NOTES

5X3=15

10. Atom structure.
11. Developer and Fixer solution.
12. Bisecting angle technique
13. Intra oral periapical radiograph.
14. Orthopantomogram

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SUPPLY EXAMINATION APRIL 2024**

III YEAR DIPLOMA IN PHYSIOTHERAPY (DPT)

TIME: 3Hrs (RS -2 SCHEME) MAX. MARKS: 100

**QP CODE: 6195, P.T IN NEUROLOGY & NEUROSURGERY
(WRITE IN GREEN ANSWER BOOK)**

SHORT NOTES – ANSWER ANY EIGHT (8x5=40)

1. Pre-operative PT assessment of Brain Tumor.
2. Define Perceptual Disorders. Mention its types.
3. Write about PT management of Spastic Diplegic Cerebral Palsy.
4. What is Parkinsonian Gait? How will you do gait training for 65 years old Parkinson's patient.
5. What is Femoral Nerve Palsy? Explain its management.
6. Discuss causes, clinical features and management of Head Injury.
7. Discuss Physiotherapy management following Transverse Myelitis.
8. Discuss Physiotherapy management of Acute Median Nerve Palsy.
9. What is Dandy walker syndrome? Its management.
10. Discuss PT management of Neuropraxia.

SHORT ANSWERS (20x3=60)

11. Bell's Phenomenon.
12. Reflex Grading.
13. Bowel dysfunction.
14. Scissoring Gait.
15. Aeroplane Splint.
16. Hydrocephalus.
17. PT assessment of spinal cord injury at T5 level.
18. Slump Test.
19. Fenkel's Exercise.
20. PT management of Multiple Sclerosis.
21. Signs of Meningitis.
22. Assessment of Coordination.
23. Define Upper Motor Neuron Lesion and its features.
24. Dysdiadokinesia.
25. Brudzinski Sign.
26. Obturator Nerve Palsy.
27. Erb's Palsy.
28. Syringomyelia.
29. Myasthenia Gravis.
30. Poliomyelitis.

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN MEDICAL
LABORATORY TECHNOLOGY (DMLT)**

**TIME: 3 Hrs (RS -1 SCHEME) MAX. MARKS: 90
QP CODE- 3103 (RS1) SUBJECT: MICROBIOLOGY**

Draw neat and labeled diagrams wherever necessary.

I. LONG ESSAY (answer any two)

2x10 =20

1. Name five Antigen-antibody reactions. Describe widal test (5+5)
2. Classify Mycobacteria. Describe laboratory diagnosis of Pulmonary tuberculosis (4+6)
3. Name organisms causing urinary tract infections. Add a note on laboratory diagnosis (5+5)

II. SHORT NOTES (answer any ten)

10 x 5=50

4. Bacterial flagella
5. Innate immunity
6. Universal safety precautions
7. Biomedical waste disposal
8. Type 1 hypersensitivity
9. Laboratory diagnosis of Malaria
10. Laboratory diagnosis of Hepatitis B virus.
11. Candida albicans
12. Autoclave
13. Entamoeba histolytica
14. Laboratory diagnosis of Typhoid fever
15. Antibacterial sensitivity testing

III. SHORT ANSWERS (answer all)

10x 2=20

16. Name two zoonotic diseases
17. Name two sexually transmitted diseases
18. Name two selective media
19. Name two acid fast bacteria
20. Name two Gram negative bacilli
21. Draw a neat labelled diagram of a bacterial spore
22. Name two anaerobic bacteria
23. Draw a neat labelled diagram of IgG
24. Name two vaccines
25. Name two transport media

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PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY(DMLT)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100**

QP CODE:6105, MICROBIOLOGY

I. Short notes, answer any EIGHT questions. 8x5=40

1. Laboratory Diagnosis of pulmonary tuberculosis.
2. Collection and Transportation of various samples for microbiological investigations.
3. Candidiasis
4. Laboratory diagnosis of Malaria.
5. Coagulase test.
6. Biomedical waste management methods.
7. Laboratory diagnosis of Hepatitis B virus infection.
8. Antibiotic sensitivity tests.
9. Laboratory Diagnosis of typhoid fever.
10. Universal safety precautions

II. Short answers

20x3=60

11. Draw a neat labelled diagram of Trichomonas vaginalis.
12. Name three agglutination tests
13. Name three anaerobic bacteria.
14. Laboratory diagnosis of Covid 19
15. Name three nematodes.
16. Name three bacteria causing urinary tract infections.
17. Draw a neat labelled diagram of Entamoeba histolytica.
18. BCG vaccine.
19. LPCB mount.
20. Name three motile bacteria.
21. Importance of hand hygiene in infection control.
22. Name three RNA viruses
23. Aspergillosis.
24. Name three routes of transmission of HIV
25. Hydatid cyst.
26. Preservation of urine samples.
27. NIH swab.
28. RA test.
29. Eggs of Ascaris lumbricoides.
30. RPR test.

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SUPPLY EXAMINATION APRIL 2024**

**II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN HEALTH
INSPECTOR (DHI)**

TIME: 3 Hrs (RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 3113, COMMUNITY MEDICINE-PART III

I. LONG ESSAY-ANSWER ANY TWO

2x10=20

1. Mention various health problems of Agricultural workers.
2. Mention various natural disasters. Add a note on Disaster cycle.
3. Explain elements of Primary Health Care.

II. SHORT NOTES -ANSWER ANY TEN

10x5=50

4. Sickness Absenteeism.
5. Hazards of noise in occupational set up and its prevention.
6. Panchayat Raj
7. School health services.
8. Principles of Primary Health Care
9. Staff pattern in Primary Health Centres.
10. Ergonomics.
11. Functions of ASHA
12. Anganwadi worker.
13. Health problems due to industrialization.
14. Explain Preplacement Examination.
15. Medical benefits with reference to ESI act.

III.SHORT ANSWERS

10x2=20

16. Mention two man-made disasters.
17. Prevention of occupational cancer.
18. Name four Essential Drugs at Primary Health Centres.
19. Define Pneumoconiosis.
20. Define Primary Health Care.
21. Mention two methods of controlling dust in occupational set up.
22. Child Labour.
23. Sub-centre.
24. Effects of radiation in occupational set up.
25. Mention various personal protective measures.

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III YEAR DIPLOMA IN HEALTH INSPECTOR (DHI)

TIME: 3 Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 6115, COMMUNITY MEDICINE PAPER-III

I. SHORT NOTES: ANSWER ANY EIGHT

8X5=40

1. Enumerate Elements of Primary Health Care.
2. Enumerate the Functions of World Health Organization. (WHO)
3. Enumerate the benefits under the ESI Act to its employees.
4. Enumerate the Man-made Disasters. Discuss any one.
5. Discuss the Disaster Cycle with a suitable diagram.
6. Enumerate the Services under UNICEF.
7. Write a note on Sickness Absenteeism.
8. Discuss Industrial Accidents in brief.
9. Define Pneumoconiosis. Write a note on any one disease that causes it.
10. Discuss in brief the Pre-placement examination for Industrial Workers.

II. SHORT ANSWERS

20X3=60

11. Enlist any three Voluntary Health Agencies.
12. Enlist any three Health Care Committees.
13. Enlist any three Natural Disasters.
14. Enumerate any two functions of the Food and Agriculture Organization (FAO)
15. Enlist any three Occupational Cancers.
16. Enlist any three functions of the Indian Red Cross Society.
17. Enlist three salient features of the Indian Factories Act.
18. Enlist any three functions of the World Bank towards Health.
19. Enlist any three Psycho-social hazards at the workplace.
20. Enumerate the Role of Medical Social Workers towards Health.
21. Enumerate the three Levels of Health Care in India.
22. Discuss Triage.
23. Enlist any three roles of NGO (Non-Governmental Org) in Health Care.
24. Enlist any three important job responsibilities of the Medical Officer in a Community Health Center (CHC)
25. Enlist any three Hazards of Health Care Waste.
26. Explain Community Participation and its role towards Health.
27. Enlist the Occupation that Children are Prohibited from Performing.
28. Enlist the common Drugs available at the Sub-Center.
29. Enlist any three functions of an Auxiliary Nurse and Mid wife (ANM)
30. Enumerate any three Rehabilitation Provided under ESI Scheme.

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN MEDICAL X-RAY
TECHNOLOGY(DMXT)**

TIME: 3 Hrs (RS -1 SCHEME)

MAX. MARKS: 90

**QP CODE: 3123, RADIOGRAPHY INCLUDING NEWER
IMAGING TECHNOLOGY**

I. LONG ESSAY-ANSWER ANY TWO

2x10=20

1. Basic principle of MRI
2. Digital mammogram
3. Image intensifier tube

II. WRITE SHORT NOTES ANY TEN

5x10=50

4. Macro radiography
5. Note on Computed radiography
6. Gamma camera
7. CT Artefacts
8. SPECT
9. Display modes in USG
10. Filters
11. Explain the sharpness and un-sharpness
12. CECT-Abdomen
13. Solid state detectors
14. Types of magnets
15. Radioactivity

III. WRITE SHORT ANSWERS

10x2=20

16. Aliasing artefact
17. Ramping
18. TLD Badge
19. Color Doppler
20. Sinogram
21. Precession
22. Voxel and Pixel
23. Mammography
24. FID signal
25. Pitch

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SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN MEDICAL IMAGING TECHNOLOGY(DMIT)
TIME: 3Hrs (RS -2 SCHEME) MAX. MARKS: 100**

**QP CODE: 6125, RADIOGRAPHIC PHOTOGRAPHY AND
IMAGING PROCESSING**

SHORT NOTE- ANSWER ANY EIGHT

8X5=40

1. Draw a neat diagram of sensitometric curve and explain different parts.
2. Draw Cross section of intensifying screens and add a note on rare earth phosphors.
3. Briefly write steps of Manual film processing.
4. Write in details different types of fogs and how to prevent them.
5. Draw cross section of double emulsion film and add a note on silver halide crystals.
6. Describe automatic film processor.
7. Latent image – definition and formation of latent image
8. Safelight in darkroom.
9. Constituents of developer and fixer.
10. Write a neat diagram of double screen cassette and add a note on screen artefact.

SHORT ANSWERS

20X3=60

11. Fluorescence and Phosphorescence.
12. Define magnification and distortion.
13. Replenishers.
14. Single coated and double coated films.
15. Relationship between film speed and radiographic contrast.
16. Spectral sensitivity.
17. Time temperature relationship in dark room processing.
18. Dichroic fog.
19. View Box
20. Labelling and presentation of a radiograph.
21. Types of x- ray films
22. Object to film distance (OFD).
23. Wet bench and dry bench.
24. Composition of fixer.
25. Bucky factor.
26. Single screen cassette.
27. Thermostat
28. Film hopper.
29. Write about FFD
30. Grid cassette.

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SUPPLY EXAMINATION APRIL 2024

**II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN MEDICAL
RECORDS TECHNOLOGY(DMRT)**

TIME: 1Hrs30 Mins (RS -1 SCHEME)

MAX. MARKS: 40

QP CODE: 3143, COMPUTER SCIENCE

I. LONG ESSAY, ANSWER ANY ONE QUESTION

10X1=10

1. What is computer virus and mention its effects? How it is prevented
2. What are the uses of computers in hospital and MRD.

II. Write short notes on any four

5x4=20

3. RAM and ROM
4. Input and output devices of computer
5. Advantages of computers
6. Laser printer and dot matrix printer
7. Monitor and Hard disk

III. Write short answers

2x5=10

8. E-mail
9. Pen drive
10. Recycle bin
11. Internet
12. PPT

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SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN MEDICAL RECORDS TECHNOLOGY(DMRT)
TIME: 1HR 30 MIN (RS -2 SCHEME) MAX. MARKS: 50**

QP CODE: 6145, COMPUTER SCIENCE

SHORT NOTES – ANY FOUR ONLY

4x5=20

1. Types of key board and explain any two
2. Input and output device
3. Types of printers and explain any two
4. Difference between RAM and ROM
5. Different Generations of computer and explain any two

SHORT ANSWERS

10X3=30

6. CPU
7. Types of software
8. Bar code reader
9. E-mail
10. Uses of computer in hospitals
11. Internet
12. Floppy disk
13. Net working
14. Compact disk
15. Expand a) VGA b) BCC c) DOS

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SUPPLY EXAMINATION APRIL 2024
II YEAR DIPLOMA IN DENTAL HYGIENE (DDH)
TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100**

**QP CODE:6185
PUBLIC HEALTH DENTISTRY, ETHICS & JURISPRUDENCE,
DENTAL MATERIALS**

I. SHORT NOTES: ANSWER ANY EIGHT QUESTIONS 8X5=40

1. Sterilization of Dental Instruments
2. Write about various Dental Specialities.
3. Aims and Objectives of Dental Health Education.
4. Water Supply to Community and Their Implications on Dental Health
5. Dental Ethics.
6. Supportive Periodontal Therapy.
7. Write about Child & parent Counselling.
8. Enumerate various method of tooth brushing
9. Use of Disclosing Agents.in dentistry
10. Oral Manifestations of HIV infected individuals

II. SHORT ANSWER 20x3=60

11. Define Epidemiology
12. Plaster of Paris.
13. Bruxism
14. Book Keeping and record maintenance.
15. Computers in Dentistry.
16. Oral Cancer.
17. Charts and Posters for dental education
18. Cavity Varnish.
19. Zinc Oxide Eugenol Cement
20. Water Fluoridation.
21. Dental Stone.
22. Silver Amalgam.
23. Recall Patient Appointment
24. Defluoridation of Water.
25. Die stone.
26. Use of Plaster Models in dental education.
27. Plaster Mixing.
28. Bill and Account maintenance in Dental practice
29. Alginate impression material.
30. Chair side assistance.

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SUPPLY EXAMINATION APRIL 2024

FIRST YEAR ALL CERTIFICATE COURSES

TIME: 1Hrs 30Mins (RS -1 SCHEME)

MAX. MARKS: 45

QP CODE:1103, BIOLOGY

I. LONG ESSAY- ANSWER ANY ONE

1X10=10

1. Describe the structure of animal cell with a neat labelled diagram.
2. Write any ten differences between mitosis and meiosis.

II. WRITE SHORT NOTE ON ANY FIVE

5X5=25

3. Describe the structure of neuron with a neat labelled diagram.
4. Write five differences between DNA and RNA.
5. AIDS.
6. List any five hormones of anterior pituitary with its function.
7. Explain the structure of human sperm with a neat labelled diagram.
8. Classification of enzymes.
9. Applications of DNA fingerprinting.

III. WRITE SHORT ANSWERS.

5X2=10

10. Name two types of blood group system.
11. Name two bacterial diseases.
12. Two stages of breathing.
13. Four stages of mitosis.
14. Allosome pattern of male and female.

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SUPPLY EXAMINATION APRIL 2024
FIRST YEAR ALL DIPLOMA COURSES
TIME: 3Hrs (RS -2 SCHEME)**

QP CODE:4105, BIOLOGY

MAX. MARKS: 100

Short Notes: Answer Any Eight

8X5=40

1. Describe the double helix model of DNA with diagram.
2. Write any five differences between mitosis and meiosis.
3. List five digestive gland with function.
4. Explain fluid mosaic model of plasma membrane with diagram.
5. Describe the hormones of anterior pituitary with functions.
6. Mechanism of respiration.
7. Describe the structure of neuron with a neat labelled diagram.
8. Draw a neat labelled diagram of human heart.
9. Match the following

i)	Brain	a) Alveoli
ii)	Kidney	b) Neuron
iii)	Lungs	c) Cornea
iv)	Eye	d) Small intestine
v)	Villi	e) Nephron

10. Fill in the blanks.
 - a) Antibacterial enzymes present in saliva is ____
 - i) Amylase ii) Lysosome iii) Lysozyme iv) Lipase
 - b) Bile is stored in ____
 - i) Kidney ii) Liver iii) Gall bladder iv) Urinary gladder
 - c) Total number of chromosomes present in human somatic cell ____
 - i)23 ii) 22 iii) 44 iv) 46
 - d) Total number of bones present in human body ____
 - i) 402 ii)206 iii)302 iv) 406
 - e) Plasmid is present in ____
 - i) Plant cell ii) Animal cell iii) Virus iv) Bacteria.

Short Answer

20 x3 =60

11. Areolar connective tissue.
12. Difference between RBC and WBC.
13. Structure of mitochondria.
14. ABO blood group system.
15. Draw a neat labelled diagram of human sperm.
16. Name any three viral diseases.
17. Functions of skin.
18. Salivary gland.
19. Applications of DNA fingerprinting.
20. What is fertilization? Mention its types.
21. Blood pressure.
22. Functions of kidney.
23. Pharynx.

continued....

24. Classification of chromosome based on the position of the centromere.
25. ECG.
26. Name male and female sex hormones.
27. Heart valves.
28. AIDS.

29. Fill in the Blanks.

- i) _____ of small intestine is connected to both liver and pancreas.
- ii) The fluid surrounding the brain is _____
- iii) _____ is called master gland.

30. Answer in one word / Sentence.

- i) Mesosome ii) Antrum iii) TT vaccine.

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN MEDICAL LABORATORY
TECHNOLOGY(DMLT)**

TIME: 3 Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

**QP CODE- 2105
SUBJECT: MICROBIOLOGY**

Draw neat and labeled diagrams wherever necessary.

I. LONG ESSAY (answer any two)

2x10 =20

1. Draw a neat labelled diagram of a bacterial cell. Describe bacterial cellwall (5+5)
2. Define and classify sterilisation. Describe about Autoclave (2+3+5)
3. Classify culture media. Describe enriched media and transport media (4+3+3)

II. SHORT NOTES (answer any ten)

10 x 5=50

4. Bacterial growth curve
5. Louis Pasteur
6. Universal safety precautions
7. Biomedical waste disposal
8. Anaerobic culture techniques
9. Innate immunity
10. Preparation of blood agar
11. Gram stain
12. Disinfectants
13. Blood culture
14. Compound Microscope
15. Sources of Infection

III. SHORT ANSWERS (answer all)

10x 2=20

16. Name two gram positive bacteria
17. Name two bacteria causing diarrhoea
18. Name two anaerobic bacteria
19. Name two capsulated bacteria
20. Name two live vaccines
21. steps of Handwash
22. Name two motile bacteria
23. Draw a neat labelled diagram of IgG
24. Name two staining techniques
25. Name two biochemical media

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**PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL 2024
IIYEARDIPLOMA IN MEDICAL LABORATORYTECHNOLOGY(DMLT)**

TIME: 3 Hrs (RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 5107, MICROBIOLOGY

I. Short notes, answer any EIGHT questions.

8 X 5 = 40

1. Type 1 hypersensitivity
2. Indole Test.
3. Properties of Antigen.
4. Draw a neat labelled diagram of bacterial cell
5. Bacterial spores
6. Difference between Prokaryotic and Eukaryotic.
7. Draw a neat labelled diagram of compound microscope
8. Active immunity
9. Bio medical Waste Management
10. Autoclave

II. Short answers

20 X 3 = 60

11. Draw a neat labelled diagram of IgM.
12. Name three motile bacteria.
13. AIDS
14. Name three Gram negative bacilli.
15. Name three RNA Viruses
16. Name three spore bearing bacteria
17. Mention different types of microscopes.
18. Transport media.
19. Name three routes of transmission of HIV
20. Name three chemical disinfectants
21. Name two differential Stains
22. Standard precautions to prevent hospital acquired infection
23. Hand hygiene.
24. Functions of bacterial capsule.
25. Cold sterilization
26. Name three anaerobic culture methods
27. Ingredients of blood agar.
28. CRP
29. COVID-19 Virus
30. Name three Live vaccines

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SUPPLY EXAMINATION APRIL 2024

I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN HEALTH INSPECTOR (DHI)

TIME: 3 Hrs

(RS -1 SCHEME)

MAX. MARKS: 90

QP CODE: 2113, COMMUNITY MEDICINE-3

I. LONG ESSAY – ANSWER ANY TWO 2X10=20

1. What is screening? Mention the uses and criteria for screening test.
(2+3+5)
2. Describe the morphology, life cycle and control measures of Aedes mosquitoes (3+3+4)
3. What is an epidemic? Explain steps in investigation of an epidemic (2+8)

II. Write Short Notes on any TEN 10X5=50

4. Herd immunity.
5. Define Surveillance. Mention four diseases under Surveillance.
6. Adverse effects of Vaccination.
7. Define Incidence. Write uses of incidence. (2+3)
8. Natural history of Disease
9. Name five vector borne diseases with names of vector
10. Census.
11. BCG Vaccine
12. Uses of Epidemiology
13. Anti Larval measures
14. Vitamin A prophylaxis.
15. Control of Housefly.

III. Write Short Answers. 10X2=20

16. Diseases transmitted by Hard Ticks-Any two
17. Define Incubation Period & one example. (1+1)
18. Define disease eradication & one disease eradicated. (1+1)
19. Mention Two Zoonotic diseases.
20. Define Mean and Mode. (1+1)
21. Mention four diseases transmitted by housefly.
22. Biological control of mosquitos
23. Two diseases transmitted by direct contact
24. Uses of statistics in hospital
25. List any four Opportunistic Infections in AIDS.

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SUPPLY EXAMINATION APRIL 2024

II YEAR DIPLOMA IN HEALTH INSPECTOR (DHI)

TIME: 3 Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 5115, COMMUNITY MEDICINE PAPER-3

I. SHORT NOTES: ANSWER ANY EIGHT

8X5=40

1. Write salient features of investigation of adverse events following immunisation (AEFI).
2. Write uses of Epidemiology.
3. Herd immunity.
4. Write sources of vitamin A rich foods.
5. Write three functions of protein. Give three examples for protein rich food.
6. Explain Do's and Don'ts of ice lined refrigerator (ILR) in PHC
7. Write different methods of assessment of nutritional status.
8. Define prevalence. Write uses of prevalence.
9. Prevention of food adulteration.
10. Write three methods of direct transmission of diseases with example.

II. SHORT ANSWERS

20X3=60

11. Importance of millet in diet and give two example.
12. Define incidence.
13. Pentavalent vaccine -schedule, dosage and route of administration.
14. Shake test.
15. Importance of dietary fibre.
16. What do you mean by temporary carrier and give two example.
17. Mention two killed vaccine and mention its route of administration.
18. Mention three milk borne diseases.
19. Define Eradication. Mention two candidate diseases for eradication
20. Quarantine.
21. Iodised salt
22. Define cold chain.
23. Vaccine carrier.
24. OPV- schedule, dosage and route of administration.
25. Phenol.
26. Droplet nuclei.
27. Parboiling.
28. Define endemic diseases with example.
29. Mention three sources of calcium rich food
30. Mention three diseases of eye.

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SUPPLY EXAMINATION APRIL 2024
I YEAR DIPLOMA/II YEAR CERTIFICATE COURSE IN MEDICAL X-RAY
TECHNOLOGY(DMXT)**

TIME: 1 Hrs 30Mins (RS -1 SCHEME)

MAX. MARKS: 45

QP CODE: 2124, PATHOLOGY

LONG ESSAY-ANSWER ANY ONE

1x10=10

1. Define neoplasia with type and example. Mention differences between benign and malignant tumor. (4 +6)
2. Define inflammation. Sign of inflammation .Write briefly about healing of fracture.
(2+3+5)

SHORT NOTES -ANSWER ANY FIVE

5x5=25

3. Achalasia cardia
4. Stages of pneumonia.
5. Fibroadenoma.
6. Myocardial infarction.
7. Write differences between kwashiorkor and marasmus.
8. Hydronephrosis .
9. Chronic cholecystitis .

SHORT ANSWERS

5x2=10

10. Types of embolism
11. Two causes of Goiter.
12. Hyperplasia
13. Two causes of cirrhosis.
14. Two causes of epistaxis.

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SUPPLY EXAMINATION APRIL 2024
IIYEAR DIPLOMA IN MEDICAL IMAGING TECHNOLOGY(DMIT)**

TIME: 1Hrs 30 Mins (RS -2 SCHEME)

MAX. MARKS: 50

QP CODE: 5125, PATHOLOGY

ANSWER ANY FOUR QUESTIONS

4 X 5 = 20

1. Write about causes and signs and symptoms of vitamin D deficiency.
2. What are the causes of thyroid enlargement? Mention in detail about thyrotoxicosis.
3. Mention the cardinal signs of inflammation. Briefly describe vascular events in acute Inflammation.
4. Hydronephrosis
5. Define pneumonia. Describe different types of pneumonia

SHORT ANSWES

10 X 3 = 30

6. Carcinoma Cervix.
7. Peptic Ulcer.
8. Write differences between benign and malignant.
9. Define hypertrophy .Give two examples
10. Fatty liver
11. Types of Emboli
12. Risk factors of Carcinoma cervix
13. Fibroid uterus
14. Gall stones
15. Fibroadenoma.

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SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN PHYSIOTHERAPY (DPT)**

TIME: 3Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 6197, C.B.R (COMMUNITY BASED REHABILITATION)

SHORT NOTES – ANSWER ANY EIGHT

(8x5=40)

1. Describe CBR team members.
2. Mention about Immunization Programmes.
3. Scope of CBR in urban and rural population.
4. Advantages and Disadvantages of Mobile Rehabilitation Units.
5. Role of family in rehabilitation of Specially Abled Child.
6. Write about prevention and management of Mental Retardation.
7. Define Community based approach.
8. Write about early detection of Disabilities.
9. Role of social workers in CBR.
10. Write in detail about the screening of High Risk Babies.

SHORT ANSWERS

(20x3=60)

11. Importance of Screening.
12. Explain multi-lateral agencies in CBR
13. Qualitative and Quantitative data.
14. Developmental Disorder.
15. Institutional Based Rehabilitation.
16. Maternal nutrition & education.
17. Models of CBR.
18. Importance of Genetic Counselling.
19. Two differences between Handicap & Disability.
20. Principles of CBR.
21. Role of Mobile Units.
22. Function of Red cross in CBR.
23. Role of Physiotherapy for Loco motor diseases.
24. Define Camp.
25. Objectives of CBR.
26. Comprehensive Rehabilitation.
27. Define Ergonomics.
28. Role of regional training Centre.
29. Types of Muscular Dystrophies
30. Functions of District Rehabilitation Centre.

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II YEAR DIPLOMA/III YEAR CERTIFICATE COURSE IN MEDICAL
RECORDS TECHNOLOGY(DMRT)
TIME: 1Hrs (RS -1 SCHEME) MAX. MARKS: 20**

**QP CODE: 3144, MEDICAL & SURGICAL CODING
ANSWER ANY THREE QUESTIONS 3X5=15**

1. Difference between ICD-9 and ICD-10
2. Name the chapters of ICD-10 in order
3. Define Dagger & Asterisk system
4. Procedure for coding External causes of injury

Expand the following abbreviations 5X1=5

5. MRI
6. DKA
7. LSCS
8. SIMC
9. LBW

**KARNATAKA NURSING & PARA MEDICAL SCIENCES EDUCATION
(REGULATION) AUTHORITY
PARA MEDICAL BOARD, BENGALURU
SUPPLY EXAMINATION APRIL 2024
III YEAR DIPLOMA IN MEDICAL RECORDS TECHNOLOGY(DMRT)
TIME: 1Hrs (RS -2 SCHEME) MAX. MARKS: 30**

QP CODE: 6146

MEDICAL & SURGICAL CODING

SHORT ANSWERS – ANY TEN

10X3=30

1. Chapters of ICD-10 (First five chapters)
2. Define eponyms with one example
3. Chapters of ICPM
4. Dagger and asterisk system
5. Live birth
6. Underlying cause of death
7. Define morbidity and mortality
8. Expand the abbreviations a) RHD b) FTND c) LBW
9. Uses of coding
10. Uses of mortality of data
- 11. Fill in the blanks**
 - a) ICD-10 contains ----- Volumes
 - b) The structure of ICD-10 code is -----
 - c) Alphabets ----- is used in chapter II and III of ICD – 10
12. Name any three diseases of the Digestive System.

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SUPPLY EXAMINATION APRIL 2024
FIRST YEAR ALL CERTIFICATE COURSES
TIME: 1Hrs 30Mins (RS -1 SCHEME) MAX. MARKS: 45**

QP CODE:1104, ENGLISH

- I. Write an Essay on any ONE of the following. 5x1=15**
1. Video games.
2. Role of Technicians in Hospitals
- II. Answer any ONE. 10x1=10**
2. Write a letter to your principal requesting to issue character certificate.
3. Write a letter to your Uncle thanking him for Birthday Gift.
- III. Write the opposite Genders 5x1=5**
5. Sister.
6. Queen.
7. Father.
8. Male.
9. Lad.
- IV. Write the opposites. 5x1=5**
10. Come.
11. End.
12. Quick.
13. Angry.
14. Dry.
- V. Use the conjunctions and make the sentences. 5x1=5**
15. When
16. But
17. So
18. There fore
19. Because
- VI. Fill up the Blanks. 5x1=5**
20. The switch isthe window.
21. The Sun raises The East.
22. There are some shoes the bed.
23. The plane is flying.....the clouds.
24. Rani is.....beautiful.....sheela.

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FIRST YEAR ALL DIPLOMA COURSES**

TIME: 3Hrs (RS -2 SCHEME) MAX. MARKS: 100

QP CODE:4107, ENGLISH

Write an essay on any one of the following in about 300 words. 15x1=15

1. Hospital waste Management.
2. Eye Donation

Answer any one (Letter Writing) 1x10=10

3. Write a letter to the Principal requesting him or her to grant 3 days leave for your sister's marriage.
4. Write a letter to your uncle about your hostel Life and college.

5. Use the following idioms/phrases in sentences of your own. 5x1=5

- a) No pain no gain b) The ball is in your court c) Childs play
d) Fish out of water e) A piece of cake

6. Change the following into indirect speech 5x1=5

- a) The boy said, " I am learning to ride a bicycle.
- b) "I will attend the concert tonight ". Father said.
- c) Shiva said, " I will wait here".
- d) The teacher said, "Prevention is better than cure".
- e) Sushma said, " The baby is crying".

7. Change the voice of the following 5x1=5

- a) The Manager will give you the pass.
- b) The fans surrendered the actor
- c) The chef cooks food everyday
- d) She has made this sweet.
- e) The snake bit the man

8. Write the opposites of the following 5x1=5

- a) After b) Soft c) cruel d) Day e) full

9. Fill In the blanks with the suitable preposition. 5x1=5

- a) The train comes _____ Goa at 5 O clock.
- b) Please keep this torch _____ the table.
- c) The moon reflects light _____ the sun.
- d) How far is Bengaluru _____ Mysore.
- e) India hosted Common Wealth Games _____ 2010.

10. Fill in the blanks with articles 5x1=5

- a) The train is late by _____ hour.
- b) All _____ pages of this book is torn.
- c) He plays _____ piano well.
- d) Asha is _____ Indian citizen.
- e) His mother is _____ doctor.

11. Give the synonyms of the following. 5x1=5

- a) Huge b) easy c) boring d) Angry e) beautiful

Cont..

12. Read the passage carefully and answer the questions that follow. 10

1. In Shantiniketan Ashram, the beauty of the sound in the silent morning, give peace to the mind. Meditation and yoga was being practiced. At ten o'clock the boys sit with their teachers in the open air, under the trees. There are no classes. The group of boys are seated round the teacher, asking questions, a greater part of the education is carried on through conversation.
2. In the afternoon the classes begin about 2 o'clock with handiwork, of boys own natural taste. Some prefer carpentry others prefer mechanical work, some enjoy spinning and weaving, others become skilled craftsmen or painters and musicians.
3. The school is over at about 4 o'clock, and then there is a rush to get first into the great open fields for football. Shantiniketan boys are famous for sports and games.
4. As night falls, fairy tales are told, short dramas are recited, and Gurudevas songs are sung, by 9 o'clock, all are glad to rest chanting prayers. The utmost meaningful education with joy and freedom is enjoyed by the students.

A) Answer the following questions,

- a) At what time the classes begin in Shantiniketan (1)
- b) When do the boys rush to the great open fields for football (1)
- c) When do the students meditate in silence (1)
- d) What do the students do in the night?(2)
- e) How do the boys end their day? (2)
- f) Which kind of handiwork is practiced in Shantiniketan?(1)
- g) Whose songs do the boys sing? (1)
- h) What kind of education do the boys get in Shantiniketan?

13. Write the correct medical term. (10x1=10)

- | | | | | |
|----------|---------|--------|---------|----------|
| a) Haemo | b) Neph | c) Uro | d) Onco | e) Pulmo |
| f) Immu | g)Patho | h) Phy | l) Endo | J) ICU |

14. Email Writing. 5

Write an Email to introduce a new employee to your company.

15. Fill in the blanks with suitable articles, prepositions and conjunctions given in the bracket. (and, the, a, an, out) 5

Rahul _____ Rama go to the garden every evening. Rama usually wears _____ old pair of jeans and Rahul goes _____ in his shorts. They often see Rama _____ gardener trimming the rose bushes with _____ pair of scissors.

16. Re-arrange the jumbled segments to form a sentence. (1x6=6)

- a. Flowers/ are / roses/ beautiful
- b. Little man/ a funny/ I know
- c. In the field/ all day/ worked/ the farmer.
- d. Lamb/ little/ had a/ Mary.
- e. Apple/ wants/ an/ Seema
- f. Cats mew/ bark/ and/ dogs bark

17. Complete the following dialogue (Situation based conversation) (4x1=4)

Father ; why were you late From school yesterday

son:

Father; Why didn't you inform us earlier?

son:.....

Father asked son

Son replied that

Father asked.....

Son replied that inwill inform.
