Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - MAR/APR 2017

Time: 3 Hours | Max. Marks: 40 Marks

Pathology

Q.P. Code: 2708

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 2708 and 2709 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) 1 x 10 = 10 Marks

1. Describe wound healing by primary and secondary union and discuss the factors affecting healing.
2. Describe etiology and pathogenesis of different types of Oedema.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Iron deficiency anaemia
4. Morphology of reversible cell injury
5. Pathological calcification
6. Fate of throbus
7. Rickets

SHORT ANSWERS 5 x 2 = 10 Marks

8. Types of embolism
9. Jaundice
10. Rheumatoid arthritis
11. Volkmann's ischemic contracture
12. Ghon's complex

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - MAR/APR 2017

Time: 3 Hours | Max. Marks: 40 Marks

Microbiology

Q.P. Code : 2709

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

(Note : Both QP Codes 2708 and 2709 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) 1 x 10 = 10 Marks

1. Define and classify immunity. Describe acquired immunity in detail.
2. Enumerate organisms causing diarrhea. Describe the pathogenesis and Laboratory diagnosis of cholera.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Anaphylaxis.
4. Hot air oven.
5. Prophylaxis against polio.
6. Laboratory diagnosis of fungal infections
7. Flagella.

SHORT ANSWERS 5 x 2 = 10 Marks

8. Complications of malaria.
9. Blood agar.
10. BCG vaccine
11. Name any four opportunistic infections in HIV.
12. Draw a labelled diagram of microfilariae.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – MAR/APR 2017

Time: Three Hours Max. Marks: 80 Ma

PHARMACOLOGY

(RS – 3 & RS - 4)

Q.P. CODE: 2710

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Classify beta blockers. Write the uses and adverse effects of propranolol
2. Classify antidepressants. Write the mechanism of action, uses and adverse effects of SSRIs
3. Classify croticosteroids. Write the mechanism of action, uses and adverse effects of glucocorticoids

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Losartan
5. Bisphosphonates
6. Non – depolarizing blockers
7. Sodium valproate
8. Management of organophosphorus poisoning
9. Low molecular weight heparin
10. Advantages and disadvantages of oral route of administration of drug
11. Techniques of local anesthesia
12. Drug antagonism
13. Osmotic diuretics

SHORT ANSWERS 10 x 2 = 20 Marks

14. Mention two uses of dopamine
15 List four uses of anticholinesterases
16. Define enzyme inhibition. Give two example
17. What are antifibrinolytics? Give two example
18. Mention two drugs used in systemic lupus erythematosus
19. List two newer insulins
20. Mention two drugs which cause nephrotoxicity
21. Mention two drugs used in cardiac arrhythmia
22. Mention two oral vaccines
23. Mention two drugs contraindicated in geriatrics

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – APRIL 2017

Time: Three Hours Max. Marks: 100 Marks

EXERCISE THERAPY

(RS – 3 & RS - 4)

Q.P. CODE: 2711

Your answers should be specific to the questions asked

Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Define Resisted exercises. Write about principles and types of Resisted exercises in detail.
2. Explain the principles, benefits types and techniques of Suspension Therapy.
3. Write about different Schools of manual Therapy and add a note on Effects, Uses and precautions of Joint mobilizations.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Define Range of Motion and methods of measuring Range of Motion.
5. Explain Endurance Test and its effects with 2 examples.
6. Write a note on Sensory tests.
7. Write in brief about types of Stresses and its effects on body.
8. Write a note on Mitchell's relaxation technique.
9. What are Derived positions and its uses?
10. Write about Principles and techniques of free exercises.
11. Define Active Assisted exercises. Write in brief about its principles and uses.
12. Define Open-chain exercise, its effects with 2 examples.
13. Write about Concentric and Eccentric exercises with examples.
14. Write a note on Organization of Group exercises and its importance.
15. Write about Diagonal pattern of Upper limb.
16. Write about any two types of Asanas and its uses.
17. Write about different types of Stretching with examples.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Importance of Pulmonary Function Test.
19. What is Ballistic stretching
20. Static power test
21. Apparent Limb length and its importance
22. Define Slow reversal and timing for Emphasis.
23. 4 uses of Percussion technique
24. 4 effects of Pranayama
25. 4 uses of Mat exercises
26. What is Stroking?
27. Merits of Hydro therapy

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - APRIL 2017

Time: Three Hours | Max. Marks: 100 Marks

Electrotherapy

(RS-3 & RS-4)

Q.P. Code : 2712

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. What is reverse piezo electric effect? Explain the treatment parameters of ultrasound and explain the contraindications and dangers of ultrasound.
2. Explain various methods of application of IFT. Explain its physiological and therapeutic effects.
3. Describe the technique and interpretation of strength duration curve.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. What is EMG biofeed back? Explain its application in physiotherapy.
5. Explain the various methods of application of paraffin wax bath.
6. Explain the therapeutic effects of cryotherapy.
7. Explain various methods of application of ultrasound.
8. Dangers and contraindications of iontophoresis.
9. Write about Faradic-Galvanic test.
10. Explain the therapeutic effects of microwave diathermy.
11. Plan-out UVR treatment in case of Vitiligo.
12. Describe the different types of electrodes used in electrotherapy.
13. What is LASER? Explain its principles.
14. Contraindications of medium frequency currents.
15. Enumerate the physiological effects of moist heat therapy.
16. Cathodal and anodal galvanism.
17. Technique of application of Shortwave diathermy.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Mention any four absolute contraindications for short wave diathermy.
19. Russian currents.
20. Rheobase.
21. Capacitance.
22. Resting membrane potential.
23. Ramped direct currents.
24. Ohm's law.
25. Methods of lowering skin resistance.
26. Duty cycle.
27. Uses of surged faradic currents.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - APRIL 2017

Time: Three Hours | Max. Marks: 80 Marks

RESEARCH METHODOLOGY & BIOSTATISTICS

(RS-3 & RS-4)

Q.P. CODE: 2713

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) — 2 x 10 = 20 Marks

1. Define sampling. Explain different types of sample design
2. Explain measures of central tendency
3. Define research design. Explain steps involved in research process.

SHORT ESSAYS (Answer any Eight) — 8 x 5 = 40 Marks

4. Difference between research methods and methodology
5. Explain steps involved in the processing of data
6. Characteristics of statistics
7. What are the methods of data collection?
8. Define variable. Explain briefly its types
9. Analysis of variance (ANOVA)
10. Use of computer in research.
11. Null and alternative hypotheses
12. Uses of t-test
13. Scales of measurement

SHORT ANSWERS — 10 x 2 = 20 Marks

14. Mean deviation
15. Cohort study
16. Editing
17. Primary and secondary data
18. Cluster sampling
19. Normal scale
20. Define mean
21. Nominal scale
22. Binomial distribution
23. Cumulative frequency curve

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - SEP-2017

Time: 3 Hours **Max. Marks: 40 Marks**

Pathology

Q.P. Code: 2708

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 2708 and 2709 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Define anaemia. Classify anaemia and write laboratory diagnosis of Iron deficiency anaemia.
2. Define inflammation. Discuss vascular and cellular events in acute inflammation.

SHORT ESSAYS (Answer any Four) **4 x 5 = 20 Marks**

3. Causes of edema
4. Atrophy and hypertrophy
5. Tuberculous arthritis
6. Osteoporosis
7. Thrombosis

SHORT ANSWERS **5 x 2 = 10 Marks**

8. Rickets
9. Exudates
10. Name four hemoparasites.
11. Virchow's triad
12. HIV - modes of transmission

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - SEP-2017

Time: 3 Hours Max. Marks: 40 Marks

Microbiology

Q.P. Code : 2709

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

(Note : Both QP Codes 2708 and 2709 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) 1 x 10 = 10 Marks

1. Define and classify sterilization. Write about autoclave.
2. Draw neat, labeled diagram of HIV. Write about laboratory diagnosis of HIV-AIDS.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Laboratory diagnosis of streptococcal infections
4. Normal flora of body
5. Gas gangrene
6. Ig A.
7. Bacterial growth curve

SHORT ANSWERS 5 x 2 = 10 Marks

8. Cytopathic effects
9. Name four zoonotic diseases.
10. Name four fungi causing deep
11. Significant bacteriuria
12. Plasmodium falciparum - complications

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - SEP-2017

Time: Three Hours Max. Marks: 80 Marks

PHARMACOLOGY

(RS - 3 & RS – 4)

Q.P. CODE: 2710

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Classify skeletal muscle relaxants. Write the action, uses and adverse effects of centrally acting agents

2. Enumerate Glucocorticoids. Mention the uses and long term adverse effects of prednisolone.Add a note on HPA axis suppression

3. Classify antianginal drugs. Describe the actions uses and adverse effects of nitroglycerine

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Drug tolerance with examples
5. Cardio selective Beta-blockers
6. Inhalational bronchodilators
7. Anabolic steroids
8. Cardiac glycosides
9. Phase I biotransformation
10. Drugs for chronic Gout
11. Proton pump inhibitors
12. Levodopa
13. ACE inhibitors

SHORT ANSWERS 10 x 2 = 20 Marks

14. Mention two drugs for myasthenia gravis
15. Name two adverse effects of phenytoin
16. Mention two emergency uses of adrenalin
17. Define drug synergism with one example
18. Give two examples for drugs acting by inhibiting an enzyme

19. Mention two drugs causing parkinsonism
20. What is teratogenesis? Give one example
21. Write the treatment for status epilepticus
22. Mention two uses of Thiazide diuretics
23. Mention two drugs to prevent osteoporosis

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEP-2017

Time: Three Hours | Max. Marks: 100 Marks

EXERCISE THERAPY

(RS – 3 & RS - 4)

Q.P. CODE: 2711

Your answers should be specific to the questions asked

Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Classify the techniques of Massage. Give the physiological effects of Massage. Describe any ONE.
2. Give the principles of MMT. Explain methods of assessment of deltoid from Grade 2 - 5.
3. List the principles of hydrotherapy. Describe each in detail with examples.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Enumerate 5 starting positions. Describe in detail any ONE.
5. Explain the types of aerobic training.
6. List types of walking aids. Explain two in detail.
7. Enumerate types of trick movements. Describe any one in detail.
8. Explain the various types of goniometers used.
9. Define types of posture. Give principles of postural re-education.
10. Give the types of passive movements with examples.
11. Explain the principles and uses of relaxation.
12. Give the advantages of MMT.
13. Explain use of axial suspension for knee joint.
14. Describe 5 methods to mobilize a stiff joint.
15. Explain the therapeutic effects of massage.
16. Describe the principles of PNF techniques.
17. Describe measurement of apparent length.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Give the importance of measuring pelvic inclination.
19. Give 2 uses of resistance exercise.
20. Describe any one asana with example.
21. Define the term BRIME.
22. Advantages of group exercise (any two).

23. Give 2 contraindications for active exercise.
24. List 2 uses of balance training.
25. Give 2 tests of in –coordination.
26 Give 2 contraindications of massage.
27 What is dynamic power test?

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEP-2017

CORRECTIONS

Q.P. CODE: 2711

Read Question No. 16 as
Describe the principles of PNF techniques.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEPT 2017

Time: Three Hours Max. Marks: 100 Marks

ELECTROTHERAPY

(RS-3 & RS-4)

Q.P. CODE: 2712

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe the physiological effects and therapeutic uses of ultra sound.
2. Write in detail the principles of production of UVR?
3. Classify TENS. Write in detail the mechanism of pain relief for various types of TENS?

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Therapeutic effects of microwave diathermy.
5. Method of application of ultrasound.
6. Indication and contraindication for shortwave diathermy.
7. Physiological and therapeutic effects of wax bath.
8. Define condenser. Explain types and uses.
9. Construction of EMG equipment.
10. Dangers and precaution for LASER.
11. Faradism under pressure.
12. Indications and contraindications of infra red radiations.
13. Electrode placement of INTERFERENTAL THERAPY.
14. Properties of electromagnetic radiations.
15. Define burns give an account of prevention.
16. Moist heat therapy.
17. Bio-feed back.

SHORT ANSWERS 10 x 2 = 20 Marks

18. What is chronaxie?
19. Classify Laser.
20. Micro massage.
21. Types of nociceptors.

22. Define Ohm’s law.
23. What is latent heat?
24. Define monochromocity.
25. What is coupling media?
26. Two indications of cryotherapy.
27. Define depolarization.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEP-2017

Time: Three Hours Max. Marks: 80 Marks

RESEARCH METHODOLOGY & BIOSTATISTICS
(RS-3 & RS-4)

Q.P. CODE: 2713

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Define biostatics, Explain characteristics of biostatistics
2. Define research design, Explain the different types of research design
3. Define tabulation. Explain the important types of graphical representation

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Analysis of variance and covariance (ANOVA & ANACOVA)
5. Stratified sampling
6. Chi-square test
7. Explain measures of asymmetry
8. Explain steps involved in the processing of data
9. Describe basic concept concerning testing of hypotheses
10. Describe various scale of measurement with examples
11. Explain measures of central tendency
12. Criteria for a good research
13. Explain questionnaire methods of data collection

SHORT ANSWERS 10 x 2 = 20 Marks

14. Define ratio scale
15. Define mode
16. Coding
17. Distinguish between primary and secondary data
18. Frequency polygon

19. Case-control study
20. Sampling errors
21. Standard deviation
22. Binomial distribution
23. Skewness

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEP-2017

Time: 3 Hours Max. Marks: 40 Marks

Pathology (RS-5)
Q.P. Code: 2737

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necess

(Note : Both QP Codes 2737 and 2738 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) 1 x 10 = 10 Marks

1. Define and classify cirrhosis. Discuss alcoholic liver disease. (2+2+
2. Define edema. Discuss etiopathogenesis of edema. Discuss (2+4+

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Etiopathogenesis and types of pathological calcification with examples
4. Define metaplasia with examples.
5. Classification and microscopy leprosy.
6. Morphology of osteosarcoma
7. Etiopathogenesis and microscopy of Hashimoto's thyroiditis

SHORT ANSWERS 5 x 2 = 10Marks

8. Types of emphysema
9. Mention three laboratory diagnosis of Beta-Thalassaemia.
10. Cardinal signs of inflammation
11. Four examples of congenital heart diseases
12. Classify bleeding disorders.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEP-2017

Time: 3 Hours Max. Marks: 40 Marks

Microbiology (RS-5)

Q.P. Code: 2738

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necess

(Note : Both QP Codes 2737 and 2738 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) 1 x 10 = 10 Marks

1. Define and classify sterilization. Give a detailed account of moist heat methods of sterilization.
2. Enumerate the viruses causing hepatitis. Write in detail about the pathogenicity and laboratory diagnosis of hepatitis B virus.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Normal flora of the human body
4. Bacterial growth curve
5. Determinants of antigenicity
6. Clinical manifestation of staphylococcus aureus
7. Prophylaxis of polio

SHORT ANSWERS 5 x 2 = 10Marks

8. Name any two capsulated bacteria.
9. Name any two biological vectors.
10. RNTCP of tuberculosis (Revised National Tuberculosis Control Programme)
11. Name any two superficial fungal infections.
12. Name any two opportunistic infections in AIDS.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEP-2017

Time: Three Hours Max. Marks: 80 Marks

Pharmacology (RS-5)

Q.P. CODE: 2739

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Classify antiepileptic drugs and explain about Phenytoin.
2. Classify oral hypoglycemic and explain about Metformin.
3. Drugs used in treatment of Gout

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Salbutamol
5. Treatment for allergic rhinitis
6. Insulin
7. Bisacodyl
8. Biotransformation
9. ACE inhibitors
10. Treatment for Myasthenia gravis
11. Tricyclic antidepressants
12. Diazepam
13. Phenobarbitone

SHORT ANSWERS 10 x 2 = 20 Marks

14. Adverse effects of glucocorticoids
15. Name any four drugs causing orthostatic hypotension as adverse effects in geriatrics.
16. Name any four drugs increasing the risk dementia in geriatrics.
17. Name any four drugs interacting with NSAID.
18. Name any two uses and adverse effects of digoxin.
19. Tachyphylaxis
20. Teratogenic drugs
21. Placebo
22. Name any two uses and adverse effects of Atorvastatin.
23. Styptics

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T Degree Examination – SEP-2017

Time: Three Hours Max. Marks: 100 Marks

Exercise Therapy (RS-5)
Q.P. CODE: 2740
Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. What are aerobic exercises? Explain the principles of aerobic exercise training and its effect on cardiovascular system.
2. Describe the physiology of balance and the components of balance.
3. Explain relaxation and write about Jacobson's relaxation.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Explain the types of suspension therapy.
5. Explain the ATP-PCr system during exercise.
6. List out starting positions. Explain any one starting position with the muscle activity.
7. Write about open chain and closed chain exercise.
8. Advantages and disadvantages of group exercises
9. Use of Frenkles exercise and its progression
10. Merits and demerits of Hydrotherapy
11. Write about mat exercises.
12. Indications and contraindications of joint mobilization
13. Principles and technique of Free exercises
14. What is progressive resisted exercise? Explain oxford technique.
15. Technique of Goniometric measurement for Ankle Joint
16. Write in brief about concentric and eccentric exercise with examples.
17. Write in brief about the angle of pelvic inclination.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Define stride length.
19. Isokinetic exercises
20. BRIME
21. Gutter Crutch

22. Define equilibrium.
23. SAID principle
24. 10RM
25. Vo2 Max
26. Active and inactive posture
27. Two tests for inco-ordination

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T Degree Examination – SEPT 2017

Time: Three Hours Max. Marks: 100

Marks

Electrotherapy (RS-5)

Q.P. CODE: 2741

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. What is Piezzo electric effect? Describe the production of ultrasound with a neat diagram. Mention the indications and contraindications of ultrasound.
2. Describe the production of LASER. Write a note on the dosage of LASER.
3. Describe the production of IRR. Add a note on dosage and dangers of IRR.

SHORT ESSAYS (Answer any Twelve) 2 x 5 = 60 Marks

4. Cavitation in ultrasound
5. Describe the cable method of SWD.
6. Physiological and therapeutic effects of MWD
7. Explain the principle of biofeedback.
8. Mechanism of propagation of action potential
9. Indications and contraindications of IRR
10. Physiological and therapeutic effects of UVR
11. Methods of application of wax
12. Placement and spacing in SWD
13. Principles of fluidotherapy
14. Therapeutic uses and contraindications of Moist heat therapy
15. Indications and contraindications of contrast bath
16. Electrode placement in IFT
17. Dosage of TENS

SHORT ANSWERS 10 x 2 = 20 Marks

18. What is standing wave in ultrasound?
19. What is magnetron?
20. Define Rheobase and Chronaxie.
21. What is attenuation?
22. Methods of application of wax bath

23. Name dangers of UVR
24. FG test
25. Beat frequency in IFT
26. Accommodation
27. Sinusoidal current

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