

BLDE (DEEMED TO BE UNIVERSITY)

JAN 2022

B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max.Marks: 80]

I SEMESTER

PAPER – IV (NATIONAL HEALTH CARE SYSTEM)

QP CODE: 8128, 8133, 8138, 8143, 8148, 8153, 8163, 8168, 8173

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Describe the epidemiology of tuberculosis and add a note on Directly observed treatment short course (DOTS)

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Write the stages of Demography cycle
3. Levels of health care services in India
4. Describe the Uses of epidemiology
5. Write the national immunization schedule
6. Explain about the contents of cancer prevention education
7. Write in detail the Equipment of cold chain
8. Describe the Elements of primary health care
9. Various measure for Prevention of accidents
10. Describe briefly the Modes of disease transmission

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Composition of oral rehydration salt (ORS)
12. Write the formula for dependency ratio
13. Define health
14. Functions of anganwadi workers
15. Post-exposure prophylaxis of rabies vaccine
16. 3-tier structure of rural government of India
17. Define monitoring and surveillance
18. Importance of community participation in health
19. Self-care in diabetes mellitus
20. Define epidemic and pandemic
21. Meaning of pulse polio immunization

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B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER

PAPER – IV (FORENSIC SCIENCE & CRIMINALISTICS – II)

QP CODE: 8258

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Define Criminalistics. What is the difference between Forensic Science and Criminalistics? Add a note on Examination & Focus of criminalistics. (2+4+4)

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Types of Tool marks.
3. Forensic value of fiber evidence.
4. Explain how conversion of light utilized as a search to crime scene.
5. Glass analysis in forensic Science.
6. Three types of evidence.
7. Dactylography.
8. Shoe mark examination.
9. Chain of Custody.
10. Safety measures at crime scene.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Classification of Crime scene.
12. Forensic examination of glass.
13. Forensic paint analysis.
14. What is the first thing you do at a crime scene?
15. Hair as evidence.
16. Types of fibers.
17. Define Forensic Science.
18. What is the another word for criminalistics.
19. In which cities of Karnataka FSL's are located.
20. Preserving the evidence.
21. Classification of the Crime scene.

B.SC MEDICAL IMAGING TECHNOLOGY EXAMINATION

[Time : 1 ½ Hours]

[Max.Marks : 50]

IIIrd SEMESTER
PAPER – II (CLINICAL SCIENCES)

QP CODE: 8312

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Brief Answer Questions:

6 x 3 = 18

1. What are the clinical symptoms and laboratory findings in a patient suffering from chronic pancreatitis?
2. How is breathing checked and maintained in basic life support protocol?
3. Explain in brief about the palpatory method of measuring blood pressure.
4. Define hypotension. Enumerate four causes of hypotension.
5. What is normal human temperature? What are various symptoms of hyperthermia?
6. What is lung abscess and enumerate its causes.

Short Answers Questions:

6 x 2 = 12

7. Enumerate the factors maintaining the blood pressure.
8. What are the DO's & DON'T'S in BURNS?
9. What are the DO's & DON'T'S in HEAT STROKE?
10. What are the imaging modalities used in a patient of acute pancreatitis?
11. Define hyperthermia? What is normal human temperature?
12. Name two gram positive organisms & two gram negative organisms?

Long Answer Questions

3 x 4 = 12

13. What are the common causes, clinical symptoms and imaging modality used to diagnose a patient of carcinoma colon?
14. Define blood pressure. Explain in brief the methods of indirect measurement of blood pressure.
15. Write about pneumonia, types and its causative organism with radiological investigations used to diagnose pneumonia?

Say True or False:

4 x 1 = 4

16. Tip of the ryle's tube is placed beyond the 4th part of duodenum.
17. Smoking & alcohol consumption are risk factors for hypertension.
18. ET tube is placed in the right bronchus.
19. Ryle's tube is also called as nasogastric tube..

Fill in the blanks

4 x 1 = 4

20. Normal Serum total bilirubin level is _____.
21. Normal heart rate is _____.
22. Hypothermia is _____.
23. Normal RBC count is _____.

**BLDE (DEEMED TO BE UNIVERSITY)
B.SC MEDICAL IMAGING TECHNOLOGY EXAMINATION**

[Time : 1 ½ Hours]

IV SEMESTER

[Max.Marks : 50]

**PAPER – II (RADIATION PHYSICS & CROSS SECTIONAL
ANATOMY OF HEAD NECK & SUPEX)**

QP CODE: 8412

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

BRIEF ANSWER QUESTIONS:

6 X 3 = 18

1. Name the lobes of the brain. Draw a neat labelled diagram.
2. Draw a neat labelled diagram of pituitary gland with lobes.
3. Draw a neat labelled diagram of axial section of the frontal sinuses.
4. Draw a neat labelled diagram of sagittal section of the sphenoid sinuses.
5. Draw labelled diagram showing cross sectional anatomy of External Ear.
6. Draw a neat labelled diagram of axial section of Pons & Cerebellum.

SHORT ANSWERS QUESTIONS:

6 X 2 = 12

7. What is permissible dose limits ?
8. What are 3 effective strategies for dose reduction ?
9. ~~What are permissible dose limits ?~~ *Draw a neat labelled diagram of Circle of Willis - (2)*
10. What are various substances used for shielding ?
11. Enumerate important structures passing through foramen Magnum
12. Enumerate the bones forming the ossicular chain?

LONG ANSWER QUESTIONS:

3 x 4 = 12

13. Draw a neat labelled diagram of ventricles of the brain.
14. Explain in detail about the radiation protection in CT.
15. Draw a neat labelled diagram of Brainstem.

SAY TRUE OR FALSE:

4 X 1 = 4

16. Brainstem is supratentorial structure (T/F) –
17. There are four pairs of paranasal sinuses(T/F)–
18. Incus is seen middle ear cavity (T/F) -
19. Lateral ventricles are seen in the posterior cranial fossa (T/F) -

FILL IN THE BLANKS

4 X 1 = 4

20. Mastoid is a part of _____ bone.
21. Expand RAD _____.
22. Maximum permissible dose at 30 years is _____.
23. Pituitary gland is located _____ to sphenoid sinus.

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JAN 2022

B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER

PAPER – V (BASIC PATHOLOGY & HEMATOLOGY)

QP CODE: 8229,8234,8239,8244,8249,8254, 8264,8269,8274

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

- 1: What is Biomedical Waste & write in detail about the types of Biomedical Waste, colour coding and its Management

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. List & describe the instruments used in histopathology
3. Cross matching
4. Define Anaphylaxis. Write its causes & Clinical Features
5. Write the differences between benign and malignant tumors
6. Universal Safety Precaution
7. Methods of Blood Collection
8. Chemical Examination of Urine
9. Discuss aims and effects of fixation. Add a note on formalin fixative
10. Dehydration of tissues

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Name various anticoagulants used in hematology
12. Selection of donor for blood donation
13. Define Anemia. Write few causes of anemia
14. Define Edema. Write its types.
15. What is hematuria. Write few Causes of Hematuria
16. What is Embolism .Write its types
17. Protocol to be followed after chemical Injury
18. Mode of Transmission of Tuberculosis
19. Tests for glucose in urine
20. Vacutainers
21. Hematology Cell counter

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B.SC MEDICAL IMAGING TECHNOLOGY EXAMINATION

[Time: 1 ½ Hours]

[Max. Marks: 50]

V SEMESTER PAPER – II (MRI) QP CODE: 8512

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Brief Answer Questions:

6 x 3 = 18

1. Describe longitudinal & transverse magnetization.
2. What is T1 and T2 relaxation time?
3. Write its salient features of T2 relaxation time.
4. What is a coil? What are types of coils?
5. What is aliasing artefact in MRI? How it can be corrected?
6. Define TR & TE.

Short Answers Questions:

6 x 2 = 12

7. What are the advantages of permanent magnets in MRI?
8. Enumerate various parts of MRI machine.
9. Enumerate the sequences used in MRI brain study.
10. What is T1, T2 & PDW image
11. Write about RF coils.
12. Name four artefacts seen in MRI

Draw Labeled Diagram:

3 x 4 = 12

13. Describe cross sectional anatomy of arch of aorta.
14. Describe cross sectional anatomy of lung lobes.
15. Describe cross sectional anatomy of KUB.

Say True or False:

4x1=4

16. Fat is suppressed on STIR (T/F) –
17. T1 is about 5-10 times longer than T2 (T/F) –
18. Fluid appears bright on T2 (T/F) -
19. Right lung has three lobes (T/F) -

Fill in the blanks

4 x 1 = 4

20. Full form of STIR is _____.
21. FFE sequence is for identification of _____ & _____.
22. Water appears dark on _____ sequence.
23. Aorta artery arises from _____ chamber.

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B.SC MEDICAL IMAGING TECHNOLOGY EXAMINATION

[Time : 1 ½ Hours]

VI SEMESTER

[Max.Marks : 50]

PAPER – II (CT & MRI ADVANCES & CROSS SECTIONAL ANATOMY OF ABDOMEN & THORAX)

QP CODE: 8612

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Brief Answer Questions:

6 x 3 = 18

1. What preparation is needed for patient for CT angiogram?
2. Mention the contraindications for MR mammography. What is the suitable period for MR mammography test?
3. What are the indications of MR Enteroclysis?
4. What are the disadvantages of phase contrast MR venogram?
5. Enumerate different generations of CT. What type of movement is seen in each generation?
6. Write about slip ring technology.

Short Answers Questions:

6 x 2 = 12

7. Mention 4 uses of color Doppler.
8. Mention indications of neurosonogram.
9. Compression technique used in mammography.
10. Enumerate three types of MR oral agents. Give examples for each.
11. Protocols for HRCT lung?
12. Types of MRA technique. Give 4 indications.

Draw Labeled Diagram:

3 x 4 = 12

13. Draw circle of willis
14. Draw Broncho-pulmonary segments of lung
15. Draw mid sagittal section of brain

Say True or False:

4 x 1 = 4

16. Excretory MR urography requires contrast administration.
17. In whole body MRI images are taken from Head to Toe.
18. In dual energy CT, tube operates at 80 kVp & 140kVp.
19. Phase Contrast-MRA uses change in the phase of transverse magnetization of the flowing blood to produce image.

Fill in the blanks

4 x 1 = 4

20. Full form of MRCP is _____.
21. Anatomic coverage of the body in whole body MRI is from _____ to _____.
22. _____ fruit juice is used in MRCP as a negative contrast to opacify bowels.
23. Full form of HASTE is _____.

JRN 2022

BLDE (DEEMED TO BE UNIVERSITY)
B.Sc. AHS IN FOOD, NUTRITION & DIETETICS

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER
PAPER – II (FOOD SCIENCE II)
QP CODE: 8282

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Draw the structure of an egg. Write a note on composition and nutritive value of an egg.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Write about the composition and nutritive value of milk and its products.
3. Make a note on cooking poultry and fish cookery.
4. What are the problems encountered in cooking milk.
5. Write about the effect of heat on milk constituents.
6. Write about the pigments present in egg.
7. Elaborate on dry and moist heat method of cooking.
8. Write about Ageing and curing of meat.
9. Make a short note on processing of milk.
10. Write a note on cuts and grades of meat and their selection.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Enlist the classes of meat.
12. Write the nutritive value of meat.
13. What are the proteins present in milk.
14. List different uses for eggs in food preparation.
15. What is rigor mortis.
16. Why does boiling milk spill over.
17. Write the nutritive value of egg.
18. Give the composition of fish.
19. Give two recipes using egg as a foundation ingredient.
20. What is cottage cheese.
21. In which aspects fish is superior to meat.

BLDE (DEEMED TO BE UNIVERSITY)

JAN 2022

B.Sc. AHS IN BIOTECHNOLOGY

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER

PAPER – III (BIO - STATISTICS)

QP CODE: 8277

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Discuss the sampling and sampling methods in research study.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Discuss with examples measures of central tendency
3. Explain about the presentation of data
4. Discuss types of Z test.
5. Compare Nonparametric and Parametric tests.
6. Explain about Application of statistics in research.
7. Explain student's test and its applications.
8. Explain any three measures of dispersion with examples.
9. Describe standard error of mean with suitable example.
10. Discuss the methods of sample size calculation in comparative studies.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Define data and types of data
12. Explain about normal distribution
13. Explain null hypothesis, type I and type II errors.
14. Classify and list the tests used for hypothesis testing
15. Compare paired and unpaired data in statistics
16. Explain one tailed and two tailed tests
17. Explain the criteria for using hypothesis testing of parametric data
18. Explain one tailed and two tailed tests
19. Explain two methods of sample size calculation in research study.
20. Application of Wilcoxon Sign Rank test and Mann Whitney U test
21. Discuss- Histogram, Bar diagram and Pai Diagram

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BLDE (DEEMED TO BE UNIVERSITY)
B.Sc. AHS FOOD & NUTRITION AND DIETETICS

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER
PAPER – I (HUMAN NUTRITION - II)
QP CODE: 8280

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Explain adverse effects of Calcium deficiency.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. What are the functions of Calcium?
3. Explain the role of Magnesium in the human body.
4. List out the functions of Iron.
5. What is IDD? Explain briefly.
6. What are the effects of Zinc deficiency?
7. What are the functions of Vitamin A?
8. What are the risk factors for Vitamin D deficiency?
9. What is the effect of Vitamin E deficiency in infants?
10. Explain Vitamin B12 deficiency disorders.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. List out functions of Vitamin B12.
12. Give RDA for Folic Acid in all groups of individuals.
13. List out sources of Thiamine and Riboflavin.
14. Give importance of Vitamin K.
15. Explain Vitamin E as an antioxidant.
16. Describe Osteomalacia.
17. What is RDA for Vitamin A in pregnancy and lactation?
18. Give RDA for Manganese and list out its food sources.
19. Explain inter-relationship of Zinc and Vitamin A.
20. Write about Copper deficiency.
21. Give RDA for Iodine in all age groups.

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BLDE (DEEMED TO BE UNIVERSITY)
B.Sc. AHS FOOD & NUTRITION AND DIETETICS

[Time: 3 Hours]

[Max.Marks: 80]

I SEMESTER
PAPER – I (HUMAN NUTRITION)
QP CODE: 8180

Long Questions

10X1 = 10 Marks

1. Define Nutrition. Describe different methods of Diet surveys.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Describe anthropometric method of Nutritional status of assessment
3. Write about Specific Dynamic Action (SDA) of foods.
4. What are Essential Fatty acids?
5. Explain metabolism of carbohydrates in body.
6. How will you measure calorific values of foods?
7. Elaborate Basal Metabolic Rate.
8. What is Supplementary action of proteins?
9. What is indirect calorimetry?
10. Explain digestion and absorption of Protein in body.
11. What are the Energy needs of the body?

Very Short Essay (Any – 10)

3 X 10 = 30 Marks

12. Define Recommended Dietary Allowances (RDA)?
13. Give Nutritional significance of Omega-3.
14. What are the standard requirements of proteins?
15. Mention the types of Fatty acids.
16. Give importance of Dietary fibers.
17. What are the functions of Fats?
18. What are the sources of carbohydrates?
19. What are Trans-fatty acids?
20. What is Glycemic index of a food?
21. Mention Essential Amino acids.

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JAN 2022

B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER

PAPER – IV (GENERAL MICROBIOLOGY)

QP CODE: 8228, 8233, 8238,8243,8248,8253,8263,8268,8273

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Describe Morphology, pathogenesis and laboratory diagnosis of Staphylococci infection.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Bacterial flagella
3. ELISA
4. Bacterial Growth curve
5. Hot air oven
6. Difference between bacteria and virus
7. Standard (universal) Precautions
8. Human Immunodeficiency Virus
9. Malaria
10. Candidiasis

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Transport media
12. Louis Pasteur
13. Acquired immunity
14. Draw neat labelled diagram of secretory IgA
15. Name three aerobic bacteria
16. Enlist organisms causing Urinary Tract Infection
17. Name various Antigen –Antibody reactions
18. Define infection and mention its types
19. Name the fungi causing respiratory tract infection
20. Name three DNA Viruses
21. Draw neat labelled diagram of Entamoeba histolytica

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER

PAPER – I (FUNDAMENTALS OF CHEMISTRY - II)

QP CODE: 8275

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Explain the term "Stereochemistry". Define enantiomers, diastereomers, and mesomer. Write all those structures for molecule 2, 3-dihydroxysuccinic acid.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. What does quantum numbers n , l , and m signify.
3. Draw spectral diagram of any one series in hydrogen atom.
4. What is the difference between orbit and orbital?
5. Give general characteristics of an ionic bonding.
6. What is lattice energy? Explain.
7. Give any two methods for synthesis of alkanes.
8. Classify elimination reactions.
9. Draw Born-Haber cycle.
10. Describe Rutherford experiment.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Draw Lewis structure for oxygen and water molecules.
12. Write the products of Br_2 addition to n-but-2-ene.
13. What are Fajan rules?
14. Draw shapes of d-orbitals.
15. Write resonance structures of carbonate ion.
16. Give any one method for synthesis of alkynes
17. Which of the following bonds are strong- ionic vs covalent? Justify your answer.
18. Write any three reactions of alkynes.
19. What are molecular orbital (MO)? How many MO are there in Hydrogen molecule?
20. Write the elimination products of 2-bromo-n-butane in presence of alkali.
21. What do you understand by LCAO method?

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B.SC MEDICAL IMAGING TECHNOLOGY EXAMINATION

[Time : 1 ½ Hours]

[Max.Marks : 50]

IIIrd SEMESTER

PAPER – I (SPECIAL RADIOGRAPHIC POSITIONS)

QP CODE: 8311

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Brief Answer Questions:

3 x 6 = 18

Describe the X ray projections under following headings:

- a) FFD b) Centring point c) size of cassette
- d) Bucky/non-Bucky d) Position of patient e) Extent of image
- 1. Atlanto axial joint -- AP view
- 2. Skull – Base of skull view
- 3. TMJ – Closed mouth view
- 4. Mastoid – Schuller’s view
- 5. Skyline view Patella
- 6. Scapula – Y view

Short Answers Questions:

2 x 6 = 12

- 7. How many films are taken for standard IVU?
- 8. What are various positions used in barium swallow?
- 9. What are various types of negative contrasts media used in Radiodiagnosis?
- 10. What are indications of Fistulogram?
- 11. What are contraindications of barium meal?
- 12. Write in brief about Sialography procedure ?

Long Answer Questions

4 x 3 = 12

Describe the procedures under following headings:

- a) Definition b) Preparation of patient c) Indications d) Contraindications
- e) Contrast used f) instruments used g) specific positions used for procedure
- h) procedure in brief.
- 13. BARIUM ENEMA.
- 14. HSG (Hysterosalpingography).
- 15. Contrasts reactions to IV contrast media and its management in brief ?

Say True or False:

1 x 4 = 4

- 16. In optic foramen view chin,Zygoma and nose will touch the radiography table
- 17. Abdominal compression can be used to separate the small bowel loops in enteroclysis(T/F)–
- 18. High residue diet is recommended for patients before barium meal(T/F) -
- 19. Towne’s view is the PA view of skull(T/F) -

Fill in the blanks

1 x 4 = 4

- 20. In IVU Ureterogram phase film is taken in _____ position.
- 21. In Sialography to visualize parotid gland in the frontal view _____ degree tube tilt is given.
- 22. In skull lateral view centring is done at _____
- 23. Caldwell’s view is used for visualization of _____ sinuses.

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B.SC MEDICAL IMAGING TECHNOLOGY EXAMINATION

[Time: 1 ½ Hours]

[Max.Marks: 50]

IV SEMESTER

PAPER – I (SPECIAL RADIOGRAPHIC POSITIONS & PROCEDURES)

QP CODE: 8411

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Brief Answer Questions:

3 x 6 = 18

Describe the X ray projections under following headings:

- a) FFD b) Centering point c) Size of Cassette d) Bucky/non-Bucky e) Position of patient
- f) Extent of image

1. Chest x ray PA
2. Sacroiliac joint-prone
3. Sacroiliac joint -oblique
4. Patella -skyline view
5. Knee-intercondylar notch view
6. Knee weight bearing.

Short Answers Questions:

2 x 6 = 12

7. Principle of radiation protection
8. Procedures used in fluoroscopy.
9. What are the indications for HSG?
10. Enumerate any four uses of IV contrast media?
11. How will you prepare a patient for enteroclysis procedure?
12. What are complications of barium meal?

Long Answer Questions:

4 x 3 = 12

Describe the procedures under following headings:

- a) Definition b) Preparation of patient c) Indications d) Contraindications e) Contrast used
- f) Instruments used g) Specific positions used for procedure h) Procedure in brief.
- 13. RGU 14. HSG 15. Write in brief about Radiation monitoring devices.

Say True or False:

1 x 4 = 4

16. HSG helps in evaluation of female infertility (T/F) –
17. IleoCecal junction should be visualized in barium swallow (T/F)–
18. Open mouth view is used for visualization of odontoid process (T/F) -
19. It is important to take the spot film prior to a barium procedure (T/F) -

Fill in the blanks

1 x 4 = 4

20. The _____ of the patient touches the image receptor in Waters view.
21. To view jugular foramina, _____ view is used.
22. _____ & _____ are the contrast media used in the double contrast examination.
23. oblique view in chest x ray is used in radiography of _____

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BLDE (DEEMED TO BE UNIVERSITY)

B.S.C MEDICAL IMAGING TECHNOLOGY EXAMINATION

[Time : 1 ½ Hours]

VI SEMESTER

[Max.Marks : 50]

PAPER – I (RADIOGRAPHY, CR/DR/PACS, ULTRASOUND & RADIATION PROTECTION)

QP CODE: 8611

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Brief Answer Questions:

6 x 3 = 18

Describe the X ray projections under following headings:

a) FFD b) Centering point c) size of cassette d) Bucky/non-Bucky e) Position of patient
f) Extent of image

1. Lumbar spine - Oblique view for various facet joints
2. Patella - Skyline view
3. Foot – Dorsiplantar view
4. Sacroiliac joint - Prone view
5. Abdomen - Cross table view
6. Knee joint - Weight bearing view

Short Answers Questions:

6 x 2 = 12

7. What is Doppler Effect? Who described it?
8. What is piezoelectric effect? Give one example of piezoelectric crystal.
9. Enumerate benefits of PACS.
10. Name two precautions to be taken before mammographic imaging.
11. Mention the standard views of mammography.
12. Mention two limitations of CR.

Draw Labeled Diagram:

3 x 4 = 12

13. Coronal section of abdomen showing abdominal organs.
14. Coronal section of PNS.
15. Mid sagittal section of brain.

Say True or False:

4 x 1 = 4

16. In color Doppler examination, blood flow towards the probe is blue
17. NT scan is done at 11-14 weeks
18. Skyline view is used for visualization of patella
19. CR is more adjustable to under and over exposure

Fill in the blanks

4 x 1 = 4

20. Centering point in Foot – Dorsiplantar view is _____.
21. Full form of TIFFA _____.
22. Full form of PACS _____.
23. Frequency of linear probe is _____.

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BLDE (DEEMED TO BE UNIVERSITY)

B.SC MEDICAL IMAGING TECHNOLOGY EXAMINATION

[Time: 1 ½ Hours]

[Max. Marks: 50]

V SEMESTER

PAPER – I (RADIOGRAPHY & SPECIAL PROCEDURES)

QP CODE: 8511

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Brief Answer Questions:

3 x 6 = 18

Describe the X ray projections under following headings:

- a) FFD b) Centring point c) size of cassette
d) Bucky/non-Bucky d) Position of patient e) Extent of image

1. Scapula Y view
2. Mandible oblique view
3. Chest lateral view
4. Reverse Towne's view of skull
5. Sternum lateral view.
6. TM joint open mouth view.

Short Answers Questions:

2 x 6 = 12

7. Name the views used for sternum.
8. Name commonly used phosphor in CR system?
9. Name the X ray views for paranasal sinuses & mention which sinuses are best visualized in each view.
10. Write two advantages of DR over CR?
11. Name four components of PACS.
12. Write two limitations of conventional radiography?

Draw Labeled Diagram:

4 x 3 = 12

13. Draw a neat labelled diagram of Shoulder joint.
14. Draw a neat labelled diagram of Knee joint.
15. Draw a neat labelled diagram of ulna.

Say True or False :

1x4 = 4

16. In PA chest view centering point is D8 vertebral body(T/F) –
17. In scaphoid view hand is placed in radial deviation (T/F)–
18. Lordotic chest view is taken for better visualization of apices of lungs(T/F) -
19. Caldwell's view is best for visualization of frontal sinuses(T/F) -

Fill in the blanks

1 x 4 = 4

20. Full form of DICOM is _____.
21. The centering point in scaphoid view of wrist is _____.
22. In carpal tunnel view, wrist is dorsiflexed to _____ degrees.
23. Schuller's views for better visualisation of _____.

JAN-2022

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. Biotechnology

[Time: 3 Hours]

[Max.Marks: 80]

I SEMESTER

PAPER – I (CHEMISTRY)

QP CODE: 8175

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Give a detailed account on deduction of gas laws.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Discuss maxwell's distribution of gas.
3. Describe the electrochemical cell with a neat labeled diagram.
4. Write a note on addition and substitution reactions.
5. Write a note deduction of gas laws.
6. Explain Arrhenius theory for dissociation of electrolytes.
7. Write a note on oxidation- reduction reactions.
8. Write a note on thermodynamics of electrode potentials.
9. Explain potentiometric titrations with a suitable example.
10. Write a note Debye-Huckel theory of activity coefficients

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. London forces
12. Buffers
13. Transference numbers
14. Faradays' Law
15. Electrolytic conductance
16. Collision theory
17. Electrolytes
18. Electromchemical cells
19. Amalgam gas
20. Reduction reaction
21. Boyle's law

JAN-2022

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER

PAPER – I (HUMAN ANATOMY - II)

QP CODE: 8225,8230,8235,8240,8245,8250,8255,8260,8265,8270

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Describe Stomach under following headings-
a) Parts b) Relations c) Blood supply d) Applied aspects.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Lobes and Ligaments liver.
3. Describe Femoral Triangle.
4. Blood supply to Rectum.
5. Histology of Large intestine.
6. Describe portal vein and porto-systemic anastomosis.
7. Explain about muscles of back of leg.
8. Histology of Testis.
9. Great saphenous vein.
10. Describe parts, ligaments and relations of Uterus

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Name the muscles supplied by common peroneal nerve.
12. Branches of superior mesenteric artery.
13. Appendix.
14. Popliteus muscle.
15. Name the muscles which cause plantar flexion of foot.
16. What is portal triad?
17. Histology of serous salivary gland.
18. What are the muscles attached to ischial tuberosity?
19. Greater omentum.
20. What are the contents of Rectus sheath?
21. Name parts of Fallopian tube.

JAN-2022

BLDE (DEEMED TO BE UNIVERSITY)
B.Sc. ALLIED HEALTH SCIENCES

[Time:3 Hours]

[Max.Marks:80]

I SEMESTER

PAPER – I (ANATOMY)

QP CODE:8125,8130,8135,8140,8145,8150,8155,8160,8165,8170

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Describe the heart under the following headings

a. External features b. Relations c. Right atrium d. Blood supply e. Applied anatomy

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Blood Supply of Long Bones

3. Synovial Joint

4. Biceps Brachii

5. Pleura

6. Superior Mediastinum

7. Hilum of Left Lung

8. Trachea

9. Pericardium

10. Histology of Smooth Muscle

Very Short Essay (Any – 10)

3 X 10 = 30 Marks

11. Types of Arteries

12. Cell Division

13. Movements at Shoulder Joints

14. Anatomical Position

15. Movements of Thumb

16. Coracoid Process

17. Development of Bone

18. Coronary Dominance

19. Name the Branches of axillary artery

20. Name the Basic Tissues of Body

21. Sesmoid Bone

BLDE (DEEMED TO BE UNIVERSITY)

JAN-2022

B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER

PAPER – II (HUMAN PHYSIOLOGY - II)

QP CODE: 8226,8231,8236,8241,8246,8251,8256,8261,8266,8271,8281

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Enlist hormones of Anterior Pituitary gland. Explain functions and regulation of growth hormone. Add a note on gigantism.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Define Oogenesis. Describe the steps of Oogenesis
3. Discuss errors of refraction.
4. What is CSF? Give its composition and distribution.
5. Explain juxta glomerular apparatus with neat labelled diagram.
6. Discuss functions of thyroid hormones
7. Discuss the Auditory Pathway.
8. Describe properties of Nerve fibers
9. Discuss the mechanism of heat balance in the body.
10. Discuss the role of hormones in the menstrual cycle.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Name the different parts of CNS
12. What is Blood brain barrier? Give its significance.
13. Define the following a. Tone b. Hypotonia c. Hypertonia
14. List the functions of Glucagon
15. Contraceptive methods for male
16. Add a note on Rickets
17. What are functions of external ear?
18. Enlist hormones secreted by Adrenal glands
19. Draw a neat and labeled diagram of Cystometrogram
20. What is GFR? Give its normal value.
21. Define the following a. Synaptic delay b. Summation c. Occlusion

[Time: 3 Hours]

[Max. Marks: 80]

I SEMESTER

PAPER – II (PHYSIOLOGY)

QP CODE: 8126,8131,8136,8141,8146,8151,8156,8161,8166,8171,8181

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Enumerate respiratory centers. Discuss neural regulation of respiration

Short Essays (Any – 8)

5 X 8 = 40 Marks

2. Oxygen transport in the blood
3. Passive transport mechanisms
4. Structure and functions of cell membrane
5. T lymphocyte
6. What is cross matching? Describe the hazards of mismatched blood transfusion
7. Classify fluid compartments of body with normal values
8. Long term regulation of blood pressure
9. Cardiac Output: Definition, Normal value and factors influencing it
10. Strength duration curve: Definition, Diagram and description

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Enumerate lung volumes and capacities. Give their normal values
12. What is plasmapheresis? Mention its significance
13. Enlist clotting factors
14. List the enzymes present in pancreatic juice
15. Mention the source and role of the following a) Gastrin b) Cholecystokinin-pancreozymin
16. List the types of intestinal movements
17. Compare cystic and hepatic bile
18. Draw a neat and labeled diagram depicting sarcomere
19. List the differences between 1st and 2nd heart sounds
20. Draw a neat and labeled diagram of ECG in Lead II
21. What is venous return? Enlist the factors influencing it

JAN-2022

BLDE (DEEMED TO BE UNIVERSITY)
B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER
PAPER – II (BIOCHEMISTRY & METABOLISM)
QP CODE: 8276

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Explain the structure of DNA and add short note on different forms of DNA.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Classification of protein.
3. Write an account of structure, function and nomenclature of nucleotides.
4. Pentose phosphate Pathway
5. Chargaff's rule
6. Describe the classification of amino acids along with their structures.
7. Ribose and deoxyribose
8. Describe the structure and functions of phospholipids.
9. Role of NAD⁺-
10. Enzyme activity

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Cofactors
12. How many ATP s are produced in glycolysis
13. Zwitterion
14. Ribose and deoxyribose
15. Enzymes involved in glycolysis
16. Nucleoside
17. Essential fatty acids
18. Holoenzyme
19. Sphingomyelins
20. Glycosidic bond
21. Lock and Key and Induced fit theory.

January - 2022

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max. Marks: 80]

I SEMESTER

PAPER – III (BIOCHEMISTRY)

QP CODE: 8127,8132,8137,8142,8147,8152,8157,8162,8167,8172

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Define enzymes. Discuss about factors affecting the enzyme activity.

(2+8)

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Describe the mechanism of ATP synthesis.

3. Write a detailed essay on glycogen synthesis.

4. Metabolism of phenylalanine and tyrosine

5. Enumerate ketone bodies. Describe their biochemical and clinical significance.

6. Catabolism of purine nucleotides

7. Biochemical functions and deficiency manifestations of vitamin D

8. What is the normal level of serum calcium? Add a note on factors regulating the calcium level.

9. Balanced diet

10. Methods of collection and preservation of blood samples in a clinical laboratory

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Protein Energy Malnutrition

12. Basic principle and applications of pH meter

13. Coenzyme forms of B complex vitamins

14. Functions of iron in the body

15. Lipid profile and its diagnostic importance

16. Significance of transamination reactions

17. Functions of cholesterol

18. Significance of HMP shunt pathway

19. Name six enzymes of clinical importance

20. Essential fatty acids

21. Mucopolysaccharides

BLDE (DEEMED TO BE UNIVERSITY) JAN -2022

B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER

PAPER – III (BIOCHEMISTRY - II)

QP CODE: 8227,8232,8237,8242,8247,8252,8257,8262,8267,8272

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. What is Acid-Base balance? What is normal blood pH? Describe various mechanisms for maintenance of blood pH

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Define lipids and classify them with suitable examples.
3. Write a short note on plasma proteins and their functions.
4. Explain the structure and functions of different types of RNAs.
5. What are electrolytes? Mention their important biochemical functions?
6. Clinical significance of calcium and phosphorus.
7. Name the tests done to assess the liver function and their clinical importance.
8. Describe the types and functions of Immunoglobulins
9. Write a note on the Laboratory tests done for the diagnosis of diabetes mellitus.
10. What are lipoproteins? Mention about their clinical significance.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. What is the significance of identification of Bence-Jones protein in the urine?
12. Classify acid-base disorders.
13. Write about the causes of iron deficiency
14. Name the anticoagulants used to collect the blood sample for the estimation of blood glucose and why they are used?
15. What is the scope of clinical Biochemistry?
16. Biological importance of DNA?
17. What is the normal range of (1) FBS (2) PPBS (3) RBS (4) Serum Creatinine?
18. Sources, RDA and functions of Iodine
19. Define electrophoresis.
20. Name the purine and pyrimidine Bases.
21. Where is albumin synthesized in the body? What is the molecular weight of albumin

JAN 2022

BLDE (DEEMED TO BE UNIVERSITY)
B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER
PAPER – II (BIOCHEMISTRY & METABOLISM)
QP CODE: 8276

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Explain the structure of DNA and add short note on different forms of DNA.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Classification of protein.
3. Write an account of structure, function and nomenclature of nucleotides.
4. Pentose phosphate Pathway
5. Chargaff's rule
6. Describe the classification of amino acids along with their structures.
7. Ribose and deoxyribose
8. Describe the structure and functions of phospholipids.
9. Role of NAD⁺-
10. Enzyme activity

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Cofactors
12. How many ATP s are produced in glycolysis
13. Zwitterion
14. Ribose and deoxyribose
15. Enzymes involved in glycolysis
16. Nucleoside
17. Essential fatty acids
18. Holoenzyme
19. Sphingomyelins
20. Glycosidic bond
21. Lock and Key and Induced fit theory.

BLDE (DEEMED TO BE UNIVERSITY) JAN 2022
BACHELOR OF PHYSIOTHERAPY

[Time: 3 Hours]

[Max.Marks:80]

I SEMESTER
PAPER -III (BIOCHEMISTRY)
QP CODE: 8122

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. What is β -oxidation? Enumerate the steps of β -oxidation of palmitic acid with energetics.

[2+5+3]

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Gluconeogenesis
3. Hyperuricemia
4. Lipoproteins; Types and functions
5. Absorption, transport and storage of Iron
6. Mucopolysaccharides
7. Fate of Glycine
8. Deficiency manifestations of vitamin D
9. Structure of DNA
10. Structural organization of Proteins

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Essential fatty acids
12. Therapeutic applications of enzymes
13. Isoelectric pH
14. Oxidative phosphorylation
15. Significance of Biomedical waste management
16. Goiter
17. Factors affecting BMR
18. Protein Energy malnutrition
19. Glycosuria
20. Beriberi
21. Application of pH meter.

BLDE (DEEMED TO BE UNIVERSITY)
BACHELOR OF PHYSIOTHERAPY

JAN 2022

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER
PAPER – III (BIOCHEMISTRY -II)
QP CODE: 8222

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. What is the normal pH of blood? Explain the role of plasma buffers and renal mechanisms in the maintenance of acid base balance of the body.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Structure and functions of cholesterol
3. Name the tumor markers with its clinical significance
4. Liver function tests
5. Describe the structure of DNA
6. Explain the structure, types and functions of Immunoglobulins
7. Electrophoresis – principle, normal pattern of serum proteins
8. Calcium homeostasis
9. Importance of serum enzyme estimation in myocardial infarction
10. Biomedical waste management

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Functions of copper
12. Name the purine and pyrimidine bases
13. HbA1C
14. Fluorosis
15. Glycosuria
16. A/G ratio
17. Functions of Lipoproteins
18. Atherosclerosis
19. ATP
20. Bence Jones protein
21. Name the serum electrolytes and give their normal reference range

JAN-2022

BLDE (DEEMED TO BE UNIVERSITY)

M.Sc. Allied Health Sciences

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER

PAPER – III (MEDICAL BIOCHEMISTRY)

QP CODE: 9008

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X3 = 30 Marks

1. Define Enzymes. Classify enzymes with suitable examples. Explain the effect of various factors affecting enzyme activity.
2. What are provitamins? Give the various chemical forms of Vitamin A. Give dietary sources, daily requirement, biochemical functions and deficiency manifestations of Vitamin A.
3. What are biochemical functions of calcium in the body? Write an essay on how the homeostasis of plasma calcium level is achieved.

Short Essays:

5 X 10 = 50 Marks

4. Dietary fibers
5. Growth Factors
6. Second messengers
7. Obesity-causes, consequences and management.
8. Antioxidant role of Vitamin E
9. Functions of Vitamin C
10. What is BMR? Explain the various factors that affect BMR.
11. Diagnostic importance of enzymes.
12. Biochemical Functions and Deficiency manifestations of Vitamin B12 and Folic acid.
13. Kwashiorkar and Marasmus.

JAN-2022

BLDE (DEEMED TO BE UNIVERSITY)
M.Sc. Allied Health Sciences (Clinical Immunology)

[Time: 3 Hours]

[Max.Marks: 80]

I SEMESTER

PAPER – I (CLINICAL BIOCHEMISTRY)

QP CODE: 9111

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Questions

10X3 = 30 Marks

1. Describe ~~about atherosclerosis~~ *mechanism of action of enzymes*
2. Describe fatty acid biosynthesis
3. Describe how TCA cycle integrate fat, protein and carbohydrate metabolism.

Short Essays:

5 X 10 = 50 Marks

4. Explain histone acetylation. What is its importance in DNA activation and inactivation?
5. Anerobic metabolism
6. HOMA-IR: *Glycosaminoglycans*
7. Mitochondrial DNA
8. Glycosuria
9. Transamination reaction
10. Hydroxymethylglutaryl CoA reductase
11. Fat soluble vitamins
12. Allosteric regulation
13. ~~Chemiluminescent assay~~ *Genetic code*

January - 2022

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max. Marks: 80]

I SEMESTER

PAPER – III (BIOCHEMISTRY)

QP CODE: 8127,8132,8137,8142,8147,8152,8157,8162,8167,8172

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Define enzymes. Discuss about factors affecting the enzyme activity.

(2+8)

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Describe the mechanism of ATP synthesis.
3. Write a detailed essay on glycogen synthesis.
4. Metabolism of phenylalanine and tyrosine
5. Enumerate ketone bodies. Describe their biochemical and clinical significance.
6. Catabolism of purine nucleotides
7. Biochemical functions and deficiency manifestations of vitamin D
8. What is the normal level of serum calcium? Add a note on factors regulating the calcium level.
9. Balanced diet
10. Methods of collection and preservation of blood samples in a clinical laboratory

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Protein Energy Malnutrition
12. Basic principle and applications of pH meter
13. Coenzyme forms of B complex vitamins
14. Functions of iron in the body
15. Lipid profile and its diagnostic importance
16. Significance of transamination reactions
17. Functions of cholesterol
18. Significance of HMP shunt pathway
19. Name six enzymes of clinical importance
20. Essential fatty acids
21. Mucopolysaccharides

BLDE (DEEMED TO BE UNIVERSITY)

JAN - 2022

B.Sc. ALLIED HEALTH SCIENCES

[Time: 3 Hours]

[Max.Marks: 80]

II SEMESTER

PAPER – III (BIOCHEMISTRY - II)

QP CODE: 8227,8232,8237,8242,8247,8252,8257,8262,8267,8272

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Long Questions

10X1 = 10 Marks

1. What is Acid-Base balance? What is normal blood pH? Describe various mechanisms for maintenance of blood pH

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Define lipids and classify them with suitable examples.
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10. What are lipoproteins? Mention about their clinical significance.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

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