



**HAEMATOLOGY AND BLOOD BANKING HSSC-II**  
**SECTION – A (Marks 10)**

Time allowed: 10 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent.

Deleting/overwriting is not allowed.

Do not use lead pencil.

حصہ اول لازمی ہے۔ اس کے جوابات اسی صفحہ پر دئے کرنا ظم مرکز کے حوالے کریں۔ کاٹ کر دوبارہ لکھنے کی اجازت نہیں ہے۔ سیاہ پنسل کا استعمال ممنوع ہے۔

Version No.			
4	4	0	1

ROLL NUMBER					

0	0	●	0
1	1	1	●
2	2	2	2
3	3	3	3
●	●	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

Answer Sheet No. \_\_\_\_\_

ہر سوال کے سامنے دیے گئے، کریکولم کے مطابق درست دائرہ کو پر کریں۔ Invigilator Sign. \_\_\_\_\_

Fill the relevant bubble against each question according to curriculum:

Candidate Sign. \_\_\_\_\_

Question	A	B	C	D	A	B	C	D
1. The circulation of blood from heart to lungs and back to heart is called:	Systemic circulation	Portal circulation	Coronary circulation	Pulmonary circulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Dilution factor for TLC count is:	1 : 20	1 : 200	1 : 100	1 : 50	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The RBC's with abnormal curved regular cytoplasmic projections is called as:	Target cell	Burr cell	Sickle cell	Acanthocyte	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Anemia due to formation of Hb-S is called:	Thalassemia	Hemophilia	Sickle cell anemia	Pernicious anemia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The Westergren's tube for ESR is graduated from:	0-200 mm	0-100 mm	0-300 mm	0-50 mm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The vector for malarial parasite is a:	Bug	Fly	Mosquitoe	Mite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Which reagent is used as platelet substitute to perform coagulation studies?	Kaoline	Phospholipids	CaCl <sub>2</sub>	Silica	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Dry tap may be obtained in case of:	Leukemia	Lymphoma	Aplastic anemia	Myeloma	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. The leukemia more common in children is:	AML	ALL	CML	CLL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. The blood group which can donate blood to individuals of all other blood groups is:	O +ive	O neg	AB +ive	AB neg	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## HAEMATOLOGY AND BLOOD BANKING HSSC-II

Time allowed: 2:20 Hours

Total Marks Sections B and C: 40

NOTE: Answer any twelve parts from Section 'B' and any two questions from Section 'C' on the separately provided answer book. Write your answers neatly and legibly.

### SECTION – B (Marks 24)

Q. 2 Answer any TWELVE parts. The answer to each part should not exceed 2 to 4 lines. (12 x 2 = 24)

- (i) What is scope of haematology?
- (ii) How is blood circulated in human body?
- (iii) Enumerate blood cells.
- (iv) What materials are required for erythropoiesis?
- (v) Describe Howell Jolly bodies and Cabot's ring
- (vi) What is normal value of reticulocyte count?
- (vii) What is clinical significance of Osmotic fragility test?
- (viii) What is the composition of haemoglobin?
- (ix) Enumerate types of thalassemia.
- (x) Write down lab diagnosis of iron deficiency anemia.
- (xi) Enumerate blood parasites.
- (xii) How is malarial parasite identified in blood?
- (xiii) What is Morawitz theory of coagulation?
- (xiv) Enumerate blood clotting factors.
- (xv) What are sites for bone marrow aspiration?
- (xvi) What is lab diagnosis of AML?

### SECTION – C (Marks 16)

Note: Attempt any TWO questions. All questions carry equal marks.

(2 x 8 = 16)

- Q. 3 What is TLC? Explain its requirements, procedure, normal value and clinical interpretation in detail.
- Q. 4 Explain blood transfusion reactions in detail.
- Q. 5 Write notes on any two of the following:
  - a. Morphological classification of anemia
  - b. Westergren's method of ESR
  - c. Forward blood grouping technique



Version No.			
4	4	1	1

ROLL NUMBER					

0	0	0	0
1	1	●	●
2	2	2	2
3	3	3	3
●	●	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

**CLINICAL PATHOLOGY AND SEROLOGY HSSC-II SECTION – A (Marks 10)**

Time allowed: 10 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed.

Do not use lead pencil.

حصہ اول لازمی ہے۔ اس کے جوابات اسی صفحہ پر دے کر نام مرکز کے حوالے کریں۔ کٹ کر دہانہ لکھنے کی اجازت نہیں ہے۔ لیڈ پینسل کا استعمال ممنوع ہے۔

Answer Sheet No. \_\_\_\_\_

ہر سوال کے سامنے دیے گئے، کریکولم کے مطابق درست دائرہ کو پر کریں۔ Invigilator Sign. \_\_\_\_\_

Fill the relevant bubble against each question according to curriculum: Candidate Sign. \_\_\_\_\_

Question	Candidate Sign.							
	A	B	C	D				
1. Pus cells are reported as _____ after examining urine sediment under microscope.	LPF	HPF	OPF	SPF	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Presence of which one the following protein in urine is NOT related to kidney disease?	Tamm Horsfall	Globulin	Albumin	Bence Jones Protein	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Which type of bile pigment is detected in urine of a patient suffering from biliary obstruction?	Bilirubin	Urobilinogen	Urochrome	Urobilin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Which one of the following tests is used for the diagnosis of syphilis?	VDRL	Widal	ASOT	RA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. _____ is the branch of pathology that deals with the invitro study of antigen and antibody reactions.	Exfoliative cytology	Microbiology	Serology	Hematology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Glucose is measured in CSF examination in terms of:	Qualitative	Quantitative	Titratve	Sublimative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The reduction in motile sperms is termed as:	Necrozoospermia	Oligospermia	Asthenozoospermia	Polyspermia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Ehrlich's benzaldehyde test is used for the detection of:	Ketone bodies	Bilirubin	Urobilinogen	Protein	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Hemoglobin in urine is detected by which one the following tests?	Gerhard's test	Rothera's test	Benedict's test	Benzidine test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Which type of instrument is used to measure glucose in blood?	Flame photometer	Spectrophotometer	Electrophoresis	PH meter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## CLINICAL PATHOLOGY AND SEROLOGY HSSC-II

Time allowed: 2:20 Hours

Total Marks Sections B and C: 40

NOTE: Answer any thirteen parts from Section 'B' and any two questions from Section 'C' on the separately provided answer book. Write your answers neatly and legibly.

### SECTION – B (Marks 26)

Q. 2 Answer any THIRTEEN parts. The answer to each part should not exceed 2 to 4 lines. ( 13 x 2 = 26 )

- (i) Write down the principle of Ehrlich's benzaldehyde test.
- (ii) What are causes of hemoglobinuria?
- (iii) Write down the composition of Rothera's reagent.
- (iv) Briefly explain Bence Jones Proteins.
- (v) What are sources of error in urine specimen collection?
- (vi) Differentiate between Azoospermia and oligoasthenozoospermia.
- (vii) Why is A.S.O.T done?
- (viii) How is syphilis diagnosed?
- (ix) Write down the principle of direct pregnancy test.
- (x) Enumerate chemicals used as gastric stimulants.
- (xi) Write down brief description of Accuracy.
- (xii) Write down the principle of Benedict's test.
- (xiii) Enumerate different special microscopes used in clinical pathology laboratory.
- (xiv) Describe exfoliative cytology with example.
- (xv) Write down the Beer's Lambert's equation.
- (xvi) How is sterilization achieved by autoclave?
- (xvii) Write down the compositions of CSF.

### SECTION – C (Marks 14)

Note: Attempt any TWO questions. All questions carry equal marks.

( 2 x 7 = 14 )

- Q. 3 Describe microscopic examination of urine in detail.
- Q. 4 Write down the requirements, procedure and calculation of sperm count.
- Q. 5 Briefly explain Widal test. Describe its principle, requirements, procedure and interpretation of results as well.



**MICROBIOLOGY HSSC-II**  
**SECTION – A (Marks 10)**

Time allowed: 10 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent.

Deleting/overwriting is not allowed.

Do not use lead pencil.

حصہ اول لازمی ہے۔ اس کے جوابات اسی صفحہ پر دے کر نام مرکز کے حوالے کریں۔ کات کر دو ہاں  
لکھنے کی اجازت نہیں ہے۔ سیاہ پینسل کا استعمال ممنوع ہے۔

Version No.			
4	4	2	1

ROLL NUMBER					

0	0	0	0
1	1	1	●
2	2	●	2
3	3	3	3
●	●	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

Answer Sheet No. \_\_\_\_\_

ہر سوال کے سامنے دیے گئے، کریکولم کے مطابق درست دائرہ کو پر کریں۔ Invigilator Sign. \_\_\_\_\_

Fill the relevant bubble against each question according to curriculum: Candidate Sign. \_\_\_\_\_

Question	Candidate Sign.							
	A	B	C	D				
1. The cyst of Entamoeba histolytica consists of nuclei.	1 – 2	1 – 4	5 – 8	3 – 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Echinococcus granulosus belongs to:	Nematode	Trematoda	Cestode	Sporozoa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The infective stage of malarial parasite to cause a disease is called:	Gametocyte	Sporozoites	Merozoites	Trophozoites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Which one of the following stage of taenia saginata is infecting stage?	Cystieri	Gametocyte	Sporozoites	Trophozoites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Kinetoplast is based on:	Mitoehondria	Ectoplasm	Cell membrane	Endoplasm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Which culture media is a choice for fungal culture?	LJ agar	Blood agar	Mackonkey agar	Sabouraud agar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Which of the following parasitic infections is diagnosed by casonitest?	Loiasis	Giardiasis	Ancylostomi-asis	Hydatid disease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The organism which spends its whole life in another organism is called:	Paratenic parasite	Obligatory parasite	Partial parasite	Temporary parasite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Which of the following parasites also exhibits free living existence?	A duodenale	P. westcrmoni	S stereoralis	N Americanus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Housefly plays an important role in parasitology as:	Vector	Carrier	Host	Parasite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



**DENTAL HYGIENE HSSC-II  
SECTION – A (Marks 20)**

Time allowed: 25 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

حصہ اول لازمی ہے۔ اس کے جوابات اسی صفحہ پر دے کر نام لکھ کر کے حوالے کریں۔ کاٹ کر دوبارہ لکھنے کی اجازت نہیں ہے۔ سیاہ پینسل کا استعمال ممنوع ہے۔

Version No.			
4	4	3	1

ROLL NUMBER					

0	0	0	0
1	1	1	●
2	2	2	2
3	3	●	3
●	●	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

Answer Sheet No. \_\_\_\_\_

ہر سوال کے سامنے دیے گئے، کریکولم کے مطابق درست دائرہ کو پر کریں۔ Invigilator Sign. \_\_\_\_\_

Fill the relevant bubble against each question according to curriculum: Candidate Sign. \_\_\_\_\_

Question	A	B	C	D	A	B	C	D
1. Which is TRUE regarding subgingival calculus?	It is more difficult to remove than supragingival calculus	It is softer than supragingival calculus	It is lighter in color than supragingival calculus	It is easier to remove than supragingival calculus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. In the histopathology of enamel caries, the least amount of demineralization is present in which zone?	Surface layer	Body of lesion	Dark zone	Translucent zone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Smooth surface caries is commonly present at:	Interproximal contact points	Labial surface of teeth	Lingual surface of teeth	Occlusal surface of teeth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Plaque begins to form on dental surface:	Immediately after brushing	20 minutes after brushing	1 hour after brushing	12 hours after brushing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Which of the following is the MOST accepted theory of cariogenesis?	Proteolytic theory	Proteolysis-chelation theory	Acidogenic theory	Hygiene hypothesis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The dominant type of cells in the initial periodontal lesion is:	Neutrophils	Erythrocytes	B-lymphocytes	T-lymphocytes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Which of the following is the primary factor in the etiology of periodontal disease?	Dental caries	Smoking	Nutritional deficiencies	Plaque	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. In treatment of periodontal diseases, the role of dental hygienist is most important in which phase?	Hygiene phase	Corrective phase	Surgical phase	Maintenance phase	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Juvenile periodontitis is a type of:	Chronic periodontitis	Acute periodontitis	Gingivitis	Dental caries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Lateral periodontal abscess forms because of:	Periodontal pocket	Caries	Tooth extraction	Ultrasonic scaling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Question	A	B	C	D	A	B	C	D
11.	The ulcers of herpes labialis are present at:	Palate	Tongue	Lips	Gingivae	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	Antibiotic stomatitis is most commonly caused by which organism?	Streptococcus	Candida albicans	Staphylococcus	Actinomyces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	Most common malignant tumor of the oral cavity is:	Squamous cell carcinoma	Basal cell carcinoma	Leukemia	Osteosarcoma	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	Additional teeth in the dentition, present in addition to the 32 teeth, are known as:	Supernatant teeth	Supernumerary teeth	Milk teeth	Permanent teeth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	The main advantage of ultrasonic scaling over manual scaling is:	More effective cleaning	Reduced visibility	The noise is irritating to some patients	Treatment is more painful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16.	Which of the following can be used as a plaque-disclosing agent?	Chlorhexidine	Fluoride varnish	Sodium fluoride	Iodine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	In bass technique, the bristles of the toothbrush should be at almost _____ to gingival margin.	15°	45°	90°	110°	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	Which of the following is the major disadvantage of chlorhexidine mouthwash?	Intrinsic staining	Extrinsic staining	Allergic reaction	Increased risk of dental caries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19.	Which of the following is an extraoral radiograph?	Periapical	Bitewing	Lower occlusal	OPG	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20.	A small round dark area is seen below the right mandibular first premolar on a periapical radiograph. Clinically there is no caries and no periodontal disease. Which of the following normal structures can appear as dark area below the premolars?	Mental foramen	Incisive foramen	Submandibular salivary gland	Labial artery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

—2HA-II 2343 —

ROLL NUMBER					



## DENTAL HYGIENE HSSC-II

**Time allowed: 2:35 Hours**

**Total Marks Sections B and C: 80**

**NOTE:** Answer any ten parts from Section 'B' and any three questions from Section 'C' on the separately provided answer book. Write your answers neatly and legibly.

### SECTION – B (Marks 50)

**Q. 2 Answer any TEN parts. The answer to each part should not exceed 2 to 4 lines. (10 x 5 = 50)**

- (i) Describe salivary pellicle.
- (ii) What is the role of streptococcus mutans in plaque formation?
- (iii) What is calculus?
- (iv) Name the causes of intrinsic staining of teeth.
- (v) Enlist the stages of pits and fissures caries.
- (vi) State the index used to measure tooth mobility.
- (vii) What is the treatment of chronic desquamative gingivitis?
- (viii) What are the main contraindications to the use of metronidazole?
- (ix) Differentiate between the terms "macrodontia" and "microdontia".
- (x) How does tetracycline use affect the structure of the tooth?
- (xi) Enumerate types of plaque disclosing agents.
- (xii) Describe the term "Pulpitis".
- (xiii) What is the proteolytic theory of cariogenesis?
- (xiv) What is meant by green extrinsic stains? Explain briefly.
- (xv) State the main clinical features of AUG.

### SECTION – C (Marks 30)

**Note:** Attempt any THREE questions. All questions carry equal marks.

**(10 x 3 = 30)**

- Q. 3** What are the types of calculus? Explain their differences in detail.
- Q. 4** Draw and label a diagram illustrating the clinical stages of dental caries.
- Q. 5** Write a note on histopathological zones of dentin caries.
- Q. 6** How plaque is involved in the etiology of chronic periodontal disease? Describe in detail
- Q. 7** Write a detailed note on Juvenile periodontitis.





**OPERATION THEATRE  
TECHNIQUES HSSC-II  
SECTION – A (Marks 20)**

Time allowed: 25 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

حصہ اول لازمی ہے۔ اس کے جوابات اسی صفحہ پر دے کر نام مرکز کے حوالے کریں۔ کاٹ کر دوں۔  
گھسنے کی اجازت نہیں ہے۔ لیڈ پینسل کا استعمال ممنوع ہے۔

Version No.			
4	4	5	1

ROLL NUMBER					

0	0	0	0
1	1	1	●
2	2	2	2
3	3	3	3
●	●	4	4
5	5	●	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

Answer Sheet No. \_\_\_\_\_

ہر سوال کے سامنے دیے گئے، کریکولم کے مطابق درست دائرہ کو پر کریں۔ Invigilator Sign. \_\_\_\_\_

Fill the relevant bubble against each question according to curriculum: Candidate Sign. \_\_\_\_\_

Question	A	B	C	D	A	B	C	D
1. Bluish discoloration of skin and mucous membranes is called:	Cyanosis	Ecchymosis	Ischemia	Erythema	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Reduced level of sodium in the blood causes an electrolyte imbalance called:	Hypovolemia	Hyponatremia	Hypokalaemia	Hypocalcaemia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. A device used to deliver anaesthesia medication in a controlled manner by setting drops per minute is called:	Boyle's apparatus	Off pump device	Infusion pump	Drip pump	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Killing of bacteria by using disinfection methods is called:	Bacteriostatic	Bactericidal	Aseptic	Pathogenic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Accumulation of blood within the tissues which clots to form solid swelling is called:	Haemothorax	Haemolysis	Hematoma	Haemorrhage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Abnormal communication between a hollow organ and skin is called:	Fistula	Fissure	Anastomosis	Sinus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Proper positioning during surgery:	Adds prolonged pressure on bony prominences	Adds discomfort	Gives appropriate access to surgical site	Helps in movement of patient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The heart is surrounded by on outer covering called:	Pleural membrane	Meninges	Pericardium	Myelin sheath	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. 'Oophorectomy' refers to surgical removal of:	Kidney	Ovary	Bladder	Gall bladder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. The method of sterilizing an operating room using a gas that destroys microorganisms is:	Autoclaving	Disinfection	Fumigation	Infection control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Term anaesthesia means:	Sensation	No pain	No sensation	Pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. The definitive treatment for life threatening arrhythmias (abnormal heart beat) is:	Cardiac massage	Defibrillation	Thrombolysis	Angioplasty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Position preferred for gynaecological examination is:	Supine	Prone	Jack knife	Lithotomy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. MC Burney's incision is used for:	Hernioraphy	Nephrectomy	Cholecystectomy	Appendectomy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Methods used to prevent intra-operative hypothermia include all EXCEPT:	Warming blankets	Blood transfusion	Use of warm saline	Maintain room temperature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Cardiac monitoring is NOT done by:	Pulse rate	Blood pressure	Electrocardiogram	Spirometry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Respiratory monitoring is done by all EXCEPT:	Colour of lips	Oxygen saturation	End tidal CO <sub>2</sub> monitoring	Arterial blood gasses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Fasting periods for solids in a patient for elective surgery is:	3 hours	2 hours	4 hours	6 hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Catgut suture is made from:	Gut of camel	Gut of sheep	Gut of lion	Gut of cat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Packing for autoclave is NOT done by:	Paper	Linen	Cardboard	Foil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## OPERATION THEATRE TECHNIQUES HSSC-II

Time allowed: 2:35 Hours

Total Marks Sections B and C: 80

**NOTE:** Answer any ten parts from Section 'B' and any three questions from Section 'C' on the separately provided answer book. Write your answers neatly and legibly.

### SECTION – B (Marks 50)

**Q. 2** Answer any TEN parts. The answer to each part should not exceed 2 to 4 lines. ( 10 x 5 = 50 )

- (i) What are the pre-op requisites before taking the patient for surgery?
- (ii) Write a short note on stages of anesthesia.
- (iii) What is hypothermia? Write down causes of hypothermia during and after surgery.
- (iv) Write a short note on epidural anesthesia.
- (v) Name five urological surgeries.
- (vi) What is cholecystectomy?
- (vii) What is a forcep? What are its uses?
- (viii) What is gloving?
- (ix) How is an operating field draped?
- (x) How is skin prepared before surgery?
- (xi) What is 'tensile strength' of a surgical suture?
- (xii) Write down the properties of a good O.T light.
- (xiii) Write down the name and functions of at least 10 cranial nerves.

### SECTION – C (Marks 30)

**Note:** Attempt any THREE questions. All questions carry equal marks. ( 3 x 10 = 30 )

- Q. 3** Write a note on absorbable sutures.
- Q. 4** Write a note on anatomy of heart.
- Q. 5** How is a surgical gown worn maintaining principles of sterilization?
- Q. 6** Write down the steps of appendectomy procedure.
- Q. 7** What are the duties of operation theatre technician during surgery and anesthesia?



**OPHTHALMIC  
TECHNIQUES HSSC-II  
SECTION – A (Marks 20)**

**Time allowed: 25 Minutes**

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

حصہ اول لازمی ہے۔ اس کے جوابات اسی صفحہ پر دے کر نام مرکز کے حوالے کریں۔ کاٹ کر دوہارا  
کئے کی اجازت نہیں ہے۔ سیاہ پینسل کا استعمال ممنوع ہے۔

Version No.			
4	4	6	1

ROLL NUMBER					

0	0	0	0
1	1	1	●
2	2	2	2
3	3	3	3
●	●	4	4
5	5	5	5
6	6	●	6
7	7	7	7
8	8	8	8
9	9	9	9

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

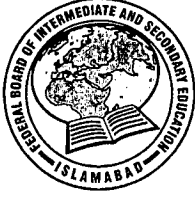
Answer Sheet No. \_\_\_\_\_

ہر سوال کے سامنے دیے گئے، کریکولم کے مطابق درست دائرہ کو پر کریں۔ Invigilator Sign. \_\_\_\_\_

Fill the relevant bubble against each question according to curriculum:

Candidate Sign. \_\_\_\_\_

Question	A	B	C	D	A	B	C	D
1. Tarsal plate is situated in:	Eye brow	Eye lid	Conjunctiva	Cornea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The avascular structure of eye is:	Choroid	Ciliary body	Lens	Eye lid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Lamina cribrosa is present in:	Choroid	Sclera	Ciliary body	Retina	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Scotopic vision is due to:	Cones	Rods	Optic disc	Eye lid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Vortex vein drains:	Uveal tract	Iris and ciliary body	Sclera	Retina	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The normal depth of anterior chamber is:	1 mm	2.5 mm	3 mm	0.5 mm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The normal IOP through schiottz is:	10 – 15 mmHg	Less than 10 mmHg	25 – 30 mmHg	10 – 20 mmHg	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Campimetry is used to measure:	Squint	Angle of deviation	Pattern of retina	Field charting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Determination of the refraction is done by the all EXCEPT:	Retinoscopy	Refractometer	Keratometr	Perimeter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Retinoscopy is done in a dark room at a distance of:	1 m	2 m	3 m	4 m	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Accommodation is maximum in:	Childhood	Adulthood	Middle age	Old age	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. There are _____ layers of conjunctiva.	1	3	2	4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Exophoria is common in:	Myopia	Hypermetropia	Aphakia	Presbyopia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Hirschberg test is use to detect:	Squint	Glaucoma	Cataract	Optic atroplay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Tears are produced in the new born after:	1 week	4 weeks	1 year	4 years	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. The average volume of the orbit is:	6cc	10cc	18cc	24cc	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. A new born is invariably:	Hypermetropic	Myopic	Astigmatic	Presbyopic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Absence of lens is called:	Cataract	Aphakia	Anisometropia	Presbyopia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. The average diameter of cornea is:	11 – 12 mm	11 – 12 cm	12 – 11 m	10 – 15 mm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. How many layers of cornea are there?	2	4	5	7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



**PHYSIOTHERAPY  
TECHNIQUES HSSC-II  
SECTION – A (Marks 20)**

Time allowed: 25 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent.

Deleting/overwriting is not allowed.

Do not use lead pencil.

حصہ اول لازمی ہے۔ اس کے جوابات اسی مطبق پر دئے کرنا عام مرکز کے حوالے کریں۔ کاٹ کر دوبارہ لکھنے کی اجازت نہیں ہے۔ لیسڈ پنسل کا استعمال ممنوع ہے۔

Version No.			
4	4	7	1

ROLL NUMBER					

0	0	0	0
1	1	1	●
2	2	2	2
3	3	3	3
●	●	4	4
5	5	5	5
6	6	6	6
7	7	●	7
8	8	8	8
9	9	9	9

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

Answer Sheet No. \_\_\_\_\_

ہر سوال کے سامنے دیے گئے، کرکولم کے مطابق درست دائرہ کو پر کریں۔ Invigilator Sign. \_\_\_\_\_

Fill the relevant bubble against each question according to curriculum:

Candidate Sign. \_\_\_\_\_

Question	Candidate Sign.							
	A	B	C	D				
1. Which nerve may get damaged in wrist drop?	Facial nerve	Radial nerve	Ulnar nerve	Tibial nerve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Waddling gait is common in:	Duchenne muscular dystrophy	Fracture	Tuberculosis	Osteoarthritis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. In Hemiplegia:	Four limbs are paralyzed	Both legs are paralyzed	One side of the body is paralyzed	Only arms are paralyzed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. In facial palsy, there is a lesion of:	Second cranial nerve	Fifth cranial nerve	Ninth cranial nerve	Seventh cranial nerve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Muscles which are relatively free from tension are said to be:	Relaxed	Stretched	Contracted	Dead	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Gower's sign is indication of:	Parkinsonism	Chorea	Muscular dystrophy	Erb's palsy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Following is a bone of upper limb.	Humerus	Femur	Tibia	Fibula	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. It is chronic disease of air ways which makes breathing difficult with attacks of dyspnea:	Cerebral palsy	Dystrophy	Osteoarthritis	Asthma	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Percussion is one of the techniques of:	Muscle testing	Postural drainage	Farnkle's exercise	Speech therapy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Interruption in continuity of bone is called as:	COPD	Trauma	Fracture	Dystrophy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. One of the function of biceps muscles is:	Flexion of elbow	Extension of neck	Rotation of trunk	Flexion of knee	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. It is progressive degenerative disease of synovial joints causing destruction of articular cartilage which may cause joints stiffness.	Neuritis	Osteoarthritis	Bursa	Cerebral Palsy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. The pelvis is tilted forwards and patient stands with hollowing of back to compensate it. This deformity is called:	Lordosis	Dystrophy	Cervical spondylosis	Genu valgum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Cock up splint is used for:	Foot drop	Facial palsy	Knee contracture	Wrist drop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Inflammation of Bursa is termed as:	Tenosynovitis	Sprain	Bursitis	Tendinitis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Buccinator is a muscle of:	Elbow	Face	Trunk	Thigh	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Acute inflammation of anterior horn cell of spinal cord leading to flaccid paralysis is termed as:	Polio	Cerebral palsy	TEV	Erb's Palsy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Wax therapy is one of the techniques of:	Speech therapy	Occupational therapy	Radiotherapy	Physiotherapy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. It is a technique used in certain positions to drain secretions from airways using gravity:	Muscle testing	Postural drainage	Endoscopy	CT scan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. One of the principles of treatment of fracture is:	Non-union	Mal union	Rehabilitation	Deformity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



# PHYSIOTHERAPY TECHNIQUES HSSC-II

90

Time allowed: 2:35 Hours

Total Marks Sections B and C: 80

**NOTE:** Answer any ten parts from Section 'B' and any three questions from Section 'C' on the separately provided answer book. Write your answers neatly and legibly.

## SECTION – B (Marks 50)

**Q. 2** Answer any TEN parts. The answer to each part should not exceed 2 to 5 lines. ( 10 x 5 = 50 )

- (i) Describe postural drainage.
- (ii) What is meant by resisted movements?
- (iii) Write down names of different postures.
- (iv) Explain cerebral palsy.
- (v) Write down five names of muscles of lower limb.
- (vi) Briefly explain Tuberculosis and its symptoms.
- (vii) Explain physiotherapy treatment of Facial palsy.
- (viii) Write down movements of shoulder joint.
- (ix) Explain Pulley in detail.
- (x) What is difference between Hemiplegia and Quadriplegia?
- (xi) Explain Hydrotherapy.
- (xii) Write down 4 names of bones of lower limb.
- (xiii) What are indications of wax therapy?

## SECTION – C (Marks 30)

**Note:** Attempt any THREE questions. All questions carry equal marks. ( 3 x 10 = 30 )

- Q. 3** Describe 'Breathing exercise' and 'pneumonia'. Explain symptoms and physiotherapy treatment of pneumonia in detail.
- Q. 4** Explain relaxation in detail.
- Q. 5**
- a. Write names of bones of upper limb.
  - b. Write names of muscles of face.
- Q. 6**
- a. Explain Hanging position.
  - b. Explain lobectomy
- Q. 7** Describe Hemiplegia in detail. Write down its treatment.



**BASIC MEDICAL SCIENCES  
HSSC-II  
SECTION – A (Marks 10)**

Time allowed: 10 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent.

Deleting/overwriting is not allowed.

Do not use lead pencil.

حصہ اول لازمی ہے۔ اس کے جوابات اسی صفحہ پر دے کر نام مرکز کے حوالے کریں۔ گات کر دو ہاں  
کھینے کی اجازت نہیں ہے۔ لید پینسل کا استعمال ممنوع ہے۔

Version No.			
4	4	8	1

ROLL NUMBER					

0	0	0	0
1	1	1	●
2	2	2	2
3	3	3	3
●	●	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	●	8
9	9	9	9

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

Answer Sheet No. \_\_\_\_\_

ہر سوال کے سامنے دیے گئے، کریکولم کے مطابق درست دائرہ کو پر کریں۔ **Invigilator Sign.** \_\_\_\_\_

Fill the relevant bubble against each question according to curriculum:

**Candidate Sign.** \_\_\_\_\_

Question	Candidate Sign.							
	A	B	C	D				
1. The ideal first aid management in case of fracture of bone is:	Immobilization	Immediate hospitalization	CPR	Maintain I/V line	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Poliomyelitis is transmitted by:	Penetration	Inhalation	Ingestion	Sexually	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Vaccine administered in first 24 hours after birth is:	DPT vaccine	Covid vaccine	Engerix vaccine	BCG vaccine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Absence of sweating with hot red flushed skin is seen in:	Myocardial infarction	Poliomyelitis	Tuberculosis	Heat stroke	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Patients suffering with Myocardial Infarction can lead to:	Anaphylactic shock	Hypovolemic shock	Cardiogenic shock	Septic shock	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. A stroke is a medical emergency that occurs due to interrupted blood flow to:	Brain	Heart	Kidney	Lungs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. All are the signs of Heart Attack EXCEPT:	Chest discomfort	Headache	Nausea/vomiting	Profuse sweating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. In which disease is extra salivation from mouth developed?	Hepatitis- B	Tuberculosis	Rabies	Myocardial infarction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Cholera is transmitted via:	Mouth droplet	Penetration	Faeco-oral route	Used syringes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Ades Aegypti is the vector for spreading:	Malaria	Tuberculosis	Tetanus	Dengue fever	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

—2HA-II 2348—



## BASIC MEDICAL SCIENCES HSSC-II

Time allowed: 2:20 Hours

Total Marks Sections B and C: 40

NOTE: Answer any eight parts from Section 'B' and any two questions from Section 'C' on the separately provided answer book. Write your answers neatly and legibly.

### SECTION – B (Marks 24)

Q. 2 Answer any EIGHT parts. The answer to each part should not exceed 3 to 5 lines. ( 8 x 3 = 24 )

- (i) What is meant by Public Health? Discuss briefly.
- (ii) Write down the difference between Vaccination and Immunization.
- (iii) What is Quarantine? Discuss briefly.
- (iv) What is meant by Vector of disease? Give examples.
- (v) Write a short note on prevention of Tetanus.
- (vi) Write down the causative agents of: Cholera; Typhoid fever, Tuberculosis and Whooping Cough.
- (vii) Discuss the difference between Nosocomial infection and Iatrogenic infection.
- (viii) At what age, vaccine for Measles is administered.
- (ix) Write a short note on Choking.
- (x) What does AED stands for? What are the indications of AED?
- (xi) What is the "Rule of Nine"? Write percentages of burns in human body.

### SECTION – C (Marks 16)

Note: Attempt any TWO questions. All questions carry equal marks. ( 2 x 8 = 16 )

- Q. 3 Discuss Hepatitis and its 3 major types in detail.
- Q. 4 Write a detailed note on Typhoid fever, its causes, prevention and management.
- Q. 5 What are the Types of Shock? Discuss each type in detail.



**APPLIED SCIENCES  
HSSC-II  
SECTION – A (Marks 10)**

Time allowed: 10 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent.

Deleting/overwriting is not allowed.

Do not use lead pencil.

حصہ اول لازمی ہے۔ اس کے جوابات اسی طور پر دے کر نام مرکز کے حوالے کریں۔ کاٹ کر وہاں  
گینے کی اجازت نہیں ہے۔ لیڈ پینل کا استعمال ممنوع ہے۔

Version No.			
4	4	9	1

ROLL NUMBER					

0	0	0	0
1	1	1	●
2	2	2	2
3	3	3	3
●	●	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	●	9

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

Answer Sheet No. \_\_\_\_\_

ہر سوال کے سامنے دیے گئے، کرکیکولم کے مطابق درست دائرہ کو پر کریں۔ **Invigilator Sign.** \_\_\_\_\_

Fill the relevant bubble against each question according to curriculum: **Candidate Sign.** \_\_\_\_\_

Question	A	B	C	D	A	B	C	D
1. What is the best thing to do in case one has a question about health care?	Research it on the internet	Ignore it and trust everything will work out	Speak up and ask your health care provider	Ask a friend or family member to find the answer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Who is responsible for patient safety?	Doctors only	Nurses only	Patients only	Doctor, Nurses and Patients everyone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Current density is:	"The amount of charge passing through an area"	"The amount of voltage passing per unit cross-section area"	"The amount of current travelling per unit cross-section area"	"The quantity of current passing through a wire"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The frequency of ultrasound is:	Lower than 20,000 Hz	Higher than 200,000 Hz	Lower than 10,000 Hz	Higher than 20,000 Hz	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Which of the following is billionth of a second?	Microsecond	Nanosecond	Tera second	Giga second	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The difference between people with access to computers and the internet and those without this access is known as the:	Digital divide	Internet divide	Cyber way divide	Web divide	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All of following are example of real security and privacy risks EXCEPT:	Viruses	Hackers	Spam	Identity theft	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The term 'Pentium' is related to:	DVD	Hard disk	Microprocessor	Mouse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. What type of process creates a smaller file that is faster to transfer over the internet?	Compression	Fragmentation	Encapsulation	Unzipping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Which factor would strongly influence a person to use a computer?	Accuracy and versatility only	Reliability and speed only	Speed and cost only	Accuracy, speed, reliability and cost all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





# APPLIED SCIENCES HSSC-II

94

Time allowed: 2:20 Hours

Total Marks Sections B and C: 40

NOTE: Answer any twelve parts from Section 'B' and any two questions from Section 'C' on the separately provided answer book. Write your answers neatly and legibly.

## SECTION – B (Marks 24)

Q. 2 Answer any TWELVE parts. The answer to each part should not exceed 2 to 4 lines. ( 12 x 2 = 24 )

- (i) Describe mainframe computer.
- (ii) What does the abbreviation of "DAICOM" mean? Write short note on it.
- (iii) Describe the terms "GUI" and "CLI".
- (iv) What are Word processing software?
- (v) Differentiate between PAN and LAN.
- (vi) Differentiate between Data and Information.
- (vii) What is internet? Write any two uses of internet.
- (viii) Describe a presentation software.
- (ix) What is MIS?
- (x) Briefly explain a digital image.
- (xi) What is an Operating System?
- (xii) A current of 0.75 A is drawn by the filament of an electric bulb for 10 minutes. Find the amount of electric charge that flows through the circuit.
- (xiii) Write a short note on pacemaker device.
- (xiv) What are microwaves?
- (xv) What are pathogenic microorganisms?
- (xvi) Describe the term "Patient safety".

## SECTION – C (Marks 16)

Note: Attempt any TWO questions. All questions carry equal marks.

( 2 x 8 = 16 )

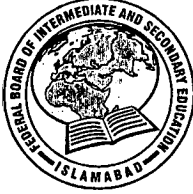
Q. 3 What is meant by software development life cycle (SDLC)? Explain in detail.

Q. 4 Write a note on each of the following:

- |               |                         |
|---------------|-------------------------|
| a. Multimedia | b. Spreadsheet Software |
|---------------|-------------------------|

Q. 5 Write detailed notes on following:

- |                                 |               |
|---------------------------------|---------------|
| a. Modes of spread of infection | b. Ultrasound |
|---------------------------------|---------------|



## RADIOGRAPHIC TECHNIQUES HSSC-II SECTION - A (Marks 20)

Time allowed: 25 Minutes

Section - A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent.

Deleting/overwriting is not allowed.

Do not use lead pencil.

حصہ اول لازمی ہے۔ اس کے جوابات اسی صفحہ پر دئے کرنا ظم کر کے حاصل کریں۔ کاٹ کر دوبارہ  
لکھنے کی اجازت نہیں ہے۔ سیاہی پنسل کا استعمال ممنوع ہے۔

Version No.			
4	5	0	1

ROLL NUMBER					

0	0	●	0
1	1	1	●
2	2	2	2
3	3	3	3
●	4	4	4
5	●	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

Answer Sheet No. \_\_\_\_\_

ہر سوال کے سامنے دیے گئے، کریکولم کے مطابق درست دائرہ کو پر کریں۔ **Invigilator Sign.** \_\_\_\_\_

Fill the relevant bubble against each question according to curriculum: **Candidate Sign.** \_\_\_\_\_

Question	A	B	C	D	A	B	C	D
1. Low dose X-ray system is used in:	X-ray chest	CT chest	Mammography	Ba meal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Which type of contrast is used in MRI studies?	Iodinated contrast	Barium contrast	Gadolinium contrast	Air	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. All 12 pair of Ribs articulate with thoracic vertebrae.	Anteriorly	Posteriorly	Do not articulate	Anteriorly and Posteriorly both	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Midline bony depression between eyes where frontal, nasal bone meets is called:	Glabella	Nasion	Vertex	Pterion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Patella is hidden in the tendon of:	Sartorius	Soleus	Semi tendinosis	Quadricep tendon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Which of the following is collar bone?	Clavicle	Scapula	Sternum	Mandible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Which of the following is known as knee cap?	Lower end of femur	Upper end of tibia	Patella	Fibula	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Largest tarsal bones of foot is:	Calcaneum	Talus	Navicular	Medial malleolus of tibia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. The joint between atlas and axis is:	Ball and socket joint	Pivot joint	Saddle joint	Angular joint	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Number of tarsal bones are:	3	5	6	7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. 100% w/v Ba-sulphate is used in:	Barium swallow	Ba meal	Ba enema	HSG	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Question	A	B	C	D	A	B	C	D
12.	Drug metoclopramide used in contrast studies is:	Anti arrhythmic drug	Muscle relaxant drug	Motility stimulant drug	Hyper glycaemic drug	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	Which of the following hormones is secreted by thyroid gland?	Growth hormone	Thyroid stimulating hormone	Thyroid thyrotropin releasing hormone	Thyroxine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	Sternomanubrial joint is at the level of:	T <sub>2</sub> and T <sub>3</sub> intervertebral disc	T <sub>3</sub> and T <sub>4</sub> intervertebral disc	T <sub>4</sub> and T <sub>5</sub> intervertebral disc	T <sub>5</sub> and T <sub>6</sub> intervertebral disc	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	Appendix is attached to:	Posteromedial end of cecum	Posterolateral end of ilium	Ascending colon	Descending colon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16.	Stomach is anatomically located in:	Epigastric region	Left lumbar region	Left hypochondrium	Right hypochondrium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	Subject contrast is improved when:	Kvp is increased	Kvp is decreased	mAS are increased	mAS are decrease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	Filament of x-ray tube:	Voltage supply is about 10 volts	Voltage supply is 60-150 kvp	It is made up of tungsten	Focusing cup and filament are in opposite sides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19.	SI unit of temperature is:	Kelvin	Centigrade	Fahrenheit	Joules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20.	Lordotic projection is used to see:	Apices of lungs	Lower lobe collapse	Middle lobe collapse	Upper lobe collapse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

—2HA-II 2350—

ROLL NUMBER					



# RADIOGRAPHIC TECHNIQUES HSSC-II

96

Time allowed: 2:35 Hours

Total Marks Sections B and C: 80

**NOTE:** Answer any twenty-five parts from Section 'B' and any three questions from Section 'C' on the separately provided answer book. Write your answers neatly and legibly.

## SECTION – B (Marks 50)

**Q. 2** Answer any TWENTY-FIVE parts. The answer to each part should not exceed 2 to 4 lines. (25x2=50)

- (i) Enlist carpal bones.
- (ii) What does MRI stand for? What type of radiation it uses? Is it harmful?
- (iii) What is claustrophobia? What things are prohibited in MR room?
- (iv) What is density of blood, water, Bone Air, in CT Hu?
- (v) Write names of the bones forming the vertebral column?
- (vi) Barium meal is used to study which parts of GIT?
- (vii) Which three bones form thoracic cavity?
- (viii) Write anatomy of shoulder joint.
- (ix) Draw upper part of femur bone.
- (x) Write anatomy of sacral vertebra.
- (xi) What is space charge in X-ray tube?
- (xii) Write a short note on lead.
- (xiii) Write centering point for AP X-ray pelvis.
- (xiv) Write down the steps involved in film processing in conventional x-ray method.
- (xv) Write anatomy of elbow joint.
- (xvi) Name the bones which form 'HIND FOOT'.
- (xvii) How is centering done for X-ray projection of ankle joint?
- (xviii) What is bronchogram?
- (xix) What is prone position for imaging?
- (xx) Describe antiseptic technique; mention antiseptic agent. (at least 3)
- (xxi) What is vertex?
- (xxii) What is lamda?
- (xxiii) Name Paranasal sinuses.
- (xxiv) What is town's view?
- (xxv) Name views for temporomandibular joint.
- (xxvi) Name bones which form atlanto occipital joint.
- (xxvii) What are the indications for HSG (Hysterosalpingography)?
- (xxviii) Name different parts of thyroid gland.
- (xxix) Name the veins which carry deoxygenated blood back to heart.
- (xxx) Name parts of large intestine.
- (xxxii) At which part of GIT does common bile duct open.

## SECTION – C (Marks 30)

**Note:** Attempt any THREE questions. All questions carry equal marks.

(3 x 10 = 30)

- Q. 3** What is meant by Anaphylactic reaction? What is the treatment of moderate reaction?
- Q. 4** How will one construct a room for CT scan?
- Q. 5** Where is scaphoid bone located? How its x-rays are done? Write positions and centering.
- Q. 6** What is the indication for knee skyline view? How is centering done in it?
- Q. 7** Write procedure of barium swallow in detail, mention patient pretest and post procedure instructions. Write any side effects of the procedure.