



Umanand Prasad School of Medicine Department of Clinical

Sciences

Year 2020

FINAL COURSE EXAMINATION PAPER

SURGERY 602

Important Instructions to Students:

1. Read the questions, instructions carefully and answer the questions.
2. You are allowed an **extra 10 minutes reading time** (during this time, you are not allowed to write with pen) and **180 minutes (3 Hours)** to complete this paper.
3. Silent, non-programmable calculators are allowed, but not supplied.
4. Write all your answers in the answer booklet provided. If you need extra sheets, please ask from the supervisor. Write your name, course code and student identification number on the examination sheets and on the attendance sheet as they function as your course booklet.
5. **This Final Course Examination Paper is worth 200 marks contributes 70% of the total course assessments.** Students must at least score **40%** in this final exam to pass the course.
6. This paper contains six (6) sections A, B, C, D, E and F. Try to answer all questions.
7. Write all your answers legibly. The marker has the right to award zero for answers that are not legible.
8. This is a **Closed Book Examination**. The University views plagiarism, cheating and dishonest practice as serious offences and if found, offenders are penalized.

Examination Paper Content

<u>Section</u>	<u>Question</u>	<u>Content</u>	<u>Marks</u>	<u>Suggested Time</u>
A	1-50	Multiple Choice	100	60minutes
B	1-40	Definitions	200	20minutes
C	1-20	Mensuration	100	20 minutes
D	1-20	Etymology	100	20 minutes
E	1-10	Describe	100	20 minutes
F	1-12	Diagrams	120	40 minutes
		TOTAL	720	180 Minutes

Name _____ Final Senior Surgical Exam November 11, 2020 200 marks 3 hours

A.

1. The term 'sepsis' basically means:
 - a. Disturbed by changes in pH and alkalinity
 - b. Presence of microbes and/or their toxins in blood/tissues
 - c. Negative transformation of inflammatory changes
 - d. To become coal black with iron sulfide deposition
2. The clinical term "I and D" an abscess basically means:
 - a) To culture in a Petri dish
 - b) Incise and drain pus
 - c) Incorporate and drain
 - d) To drain and culture infected serum
3. Necrotic tissue usually requires:
 - a. Bone amputation
 - b. Removal by enzymatic action
 - c. Partial or complete debridement
 - d. Improving function of tendons and joints
4. DFS is closely aligned with which scale:
 - a. Wegener's
 - b. GCS
 - c. Wallace's chart
 - d. Alvarado's scale
5. DFS is closely associated with:
 - a. Well oxygenated tissues
 - b. Anemic hypoxia
 - c. Histotoxic hypoxia
 - d. Too much 'titin' and less 'dystrophin'
6. Pus is basically which of the following:
 - a) An exudate rich in protein
 - b) A thick watery liquid filled with mitochondria
 - c) A bloody acetone-like smelling liquid
 - d) A transudate containing hydrogen and nitrogen gases
7. Which is the same as a "Petri dish"
 - a. A sophisticated garbage can
 - b. Opaque hermetically sealed detritus dish for cells
 - c. Centrifuge chamber with an aluminum top
 - d. Transparent topped viewing dish

8. A clear indication for surgery would be:
 - a. Abdominal pain plus vomiting
 - b. Leaking hollow abdominal viscus
 - c. Stomach cramps and vomiting
 - d. Perforated adductor muscle
9. Which diagnostic test does not use x-rays:
 - a. CT scanner
 - b. Barium enema
 - c. Ultrasound
 - d. IVP
10. A so called "long line" would commonly be inserted into which vessel:
 - a. Aorta or one of its major branches
 - b. Right common femoral artery
 - c. Left femoral vein
 - d. Subclavian artery
11. GCS most likely refers to which condition:
 - a. A Stemi plus arrhythmia
 - b. DFS and necrotic tissue
 - c. Injury involving the septum pellucidum
 - d. Stab wound to the heart
12. "Fractured bone" basically means:
 - a. Disruption of Sharpey's fibers
 - b. Cutting Volkmann's canals
 - c. Break in continuity or rupture of a bone
 - d. Replacing osteocytes and osteoprogenitor cells
13. Which is true of a "compound fracture"
 - a. Increased chances of infection and healing problems
 - b. Minimal possibilities of infection with good fracture hematoma
 - c. The epidermis is intact with an underlying hematoma
 - d. High sensitivity to ultra violet light pressure changes
14. Which type of fracture may be hard to see on an x-ray:
 - a. Comminuted in a diabetic
 - b. Stress in a jogger
 - c. Compound fracture of the femur secondary to an MVA
 - d. Diaphysis of the humerus
15. The term 'ortho' basically means:
 - a. Refers to something being 'straight'
 - b. Designed to withstand heavy weights
 - c. Means to be 'pain free'
 - d. Often includes references to headaches

16. Which compound is frequently used in orthopedics:
- Copper sulfide
 - Carbon tetra chloride and NO_2
 - Calcium sulfate plus bound H_2O
 - Cesium dioxide bone plates
17. The "Hilton" method relates to:
- A ruptured appendix
 - Debridement of cellulitis
 - Draining pus fluid and debris
 - Removing a gangrenous tooth
18. Further, the Hilton method:
- Always requires general anesthesia
 - Is usually sign of cancer type tumors
 - Is associated with skin grafting techniques
 - Involves gentle adequate blunt dissection
19. The term carbuncle means:
- The standard pimple
 - A big pimple
 - A serious variety of furuncle
 - A big pimple supporting hair growth
20. The word 'carbuncle' literally means:
- Fiery jewels
 - Diabetic foot sepsis
 - Like fungus balls
 - The same as cellulitis
21. Carbuncles are often found on which part of the body:
- Forehead and bregma
 - Near head of the femur
 - On the pterion
 - Nape of the neck
22. Sterility basically means:
- No virus noted falling from the atmosphere
 - Absence of bacteria and prions
 - Absence of all life forms known on Earth
 - Presence of small number of acceptable microbes
23. The most common complication of an IDC is:
- Inflammation and infection
 - Induction of tumors
 - Kidney bleeding
 - Balloon malfunction

24. Who is credited with publishing the "Rule of Nines"?
- Anton van Leewenhoek
 - Louis Pasteur using Petris dishes
 - Cardiologist Wilhelm His
 - Alex Burns Wallace
25. Lipomas are always:
- Benign or non-metastatic
 - Never noted near the azygous system
 - Frequently malignant
 - Often found near the mitral valve
26. The word 'staph' basically means:
- Pineapple like
 - Bunch of grapes
 - Cluster of beetles
 - Massive fungus overgrowth
27. Bedsores are basically caused by:
- Lymphedema and osteoporosis
 - Pressure induced ischemia
 - Faulty interstitium and low platelets
 - Faulty ischial tuberosities and Volkman canals
28. Gallstones are frequently impacted in:
- Hartman's pouch
 - Morrison's pouch
 - Winslow's foramen
 - Vater's ampulla
29. Gallstones are frequently associated with:
- Rovsing's sign
 - Kehr's sign
 - Battle's sign
 - Murphy's sign
30. Cancer of the gallbladder is associated with which observation:
- Beck's triad sign
 - Koch's postulates
 - Courvoisier's law
 - Avogadro's law
31. Gallbladder stones are frequently high in:
- Calcium bilirubinate
 - Iron oxide crystals
 - Potassium chloride
 - Cholesterol crystals

32. Gastric ulcers are often associated with and caused by:
- Helical shaped pylori
 - Staph aureus in bundles
 - Salmonella typhi migrating from the liver
 - MSRA and other viruses
33. Ludvig's angina involves which part of the body?
- Pelvis and perineum Ischial tuberosities
 - The knee popliteal fossa and patella
 - Head, neck and floor of the mouth
 - Chest, head, neck and mediastinum
34. The primary danger of "Ludvigs" is:
- Cavernous sinus thrombosis
 - Exsanguinating epistaxis
 - Esophageal spasm
 - Airway obstruction
35. The Ducts of Rivinus drain which glands:
- Parotid
 - Submandibular
 - Sublingual
 - Adenoides
36. "ABG's" of a patient is a collective term measuring which of the following:
- RBC count plus carbon dioxide
 - PO₂ pH PCO₂
 - Megakaryocytes alkali
 - Serum bilirubin and heme
37. The word 'anasarca' basically means:
- Having shingles
 - Giving off foul odors
 - Is very painful
 - Water throughout
38. The word edema means:
- Fill with air
 - To drag around
 - To dessicate
 - To swell
39. Edema is located in the:
- 3rd space
 - Cytoplasm
 - Nuclear space
 - Cytosol space

40. Hepatic cirrhosis is characterized by which:
- Hypertrophic bronchial smooth muscle
 - Bridging fibrous septa
 - Continuous capillary back forward flow
 - Extreme SOB
41. Acute pancreatitis is often characterized by:
- Elevated amylase
 - High CK-MB serum levels
 - Markedly elevated PSA
 - Low amylase and T₄ and T₃ levels
42. Shifting dullness is associated with:
- Extremity swelling in the lower extremities
 - Low IQ and head injuries
 - Ascites and CHF
 - Empyema and fever
43. Primary management of acute pancreatitis involves:
- Aggressive hydration and pain control
 - Monitoring intracranial pressure levels
 - Daily chest x-rays
 - Insertion of bilateral chest tubes
44. Which condition does not usually require incision and drainage:
- A 3cm E. histolytica liver abscess
 - Mumps orchitis plus abscess formation
 - Widespread cellulitis of the upper back
 - A 15cm diameter abscess over the left deltoid region
45. A flail chest is often characterized by:
- Thoracic paradoxical motion
 - Diffuse respiratory wheezing
 - Beck's Triade with a quiet heart
 - Micheline man syndrome
46. The word decubitus means:
- Standing around
 - Same as horizontal
 - To stand up
 - To lie down
47. In Trendelenburg's position:
- The right is rotated 15 degrees to the left
 - The head is tilted downward 5-10 degrees
 - The head is tilted upward 45-50 degrees
 - The head is tilted downward 15-30 degrees

48. The Lithotomy position originally referred to:
- a. The delivering at birth and premature labor
 - b. Supine position for gallbladder stone removal
 - c. Technique for exposing Hartman's pouch
 - d. Position for urinary bladder stone removal
49. Focused neck x-rays are often used in trauma to locate the:
- a. The intact vomer bone
 - b. The bregma
 - c. The spinal cord path
 - d. Great vein of Galen
50. Normal circulation allows:
- a. Blood flow from an artery directly to a vein via a capillary bed
 - b. Blood flow from one capillary bed to another via a vein
 - c. Blood flow from one artery directly to another
 - d. Blood flow from one vein to an artery

B. This section: fill in the blanks with a definition, appropriate description or name: be brief & to the point.

1. Bregma:		
2. Stomach fundus:		
3. Gastric antrum:		
4. Morrison's pouch:		
5. Acromion means:		
6. Primary cause of acute appendicitis:		
7. Angle of Louis-location and importance:		
8. Circle of Willis-location and importance:		
9. Common name for Sella turcica; (a)		and name its 3 basic parts:
(1)	(2)	(3)
10. Origin of term- GCS and its place of origin:		
11. Saponification: (1) meaning		(2) what condition
(3) measured by what enzyme		(4) fluid accumulation complication
12. Battle's sign (1) what bone involved:		(2) what "bony process" is involved:
13. Beck's triad found in what condition (1)		with what three well known signs:
(a)	(b)	(c)
14. Grey-Turner sign: (1) describe		(2) what condition
15. Cullen's sign: (1) describe		(2) what condition
16. McBurney's point and significance:		
17. Names of 3 common muscle structural proteins:		
a.	b.	c.
18. Names of 2 important muscle regulatory proteins: (a)		(b)
19. FNA-means:		
20. Acid fast bacteria basically means:		
21. Meaning of "Ampulla of Vater" -		
22. Meaning of portal circulation:		

23. Percent of circulating blood in heart % =	
24. Meaning of 'Acquired immunity' and the two most important characteristics:	
(1)	(2)
25. Basic meaning of the word 'antigen':	
26. Most commonly fractured bone on fall on the outstretched hand: (1) (2) and basic mechanism causing the fracture:	
27. IDC- basic meaning and name of inventor:	
28. Size of " French unit" as seen on many drain catheters equals how many mm (millimeters) (1) And (2) why called: French unit=	
29. Wallace chart applies to what condition/situation:	
30. Hangman's fracture: typically involves which structure:	
31. Jefferson fracture: typically involves which structure:	
32. Jaundice: (1) define (3) direct bilirubin	(3) indirect bilirubin
33. Ampulla of Vater:	
34. Sphincter of Oddi:	
35. GFR means:	
36. Meaning of 'Torsion of the testis" best definitive diagnostic test:	
37. Three primary histologic changes in cirrhotic liver: (1) (2) (3)	
38. Apoptosis basically means:	
39. Name the 4 common types of 'hypoxia'	
40. Describe what is meant by a life threatening- "Saddle embolus": (1) (2) Typical site where it would lodge	

C. Table of mensuration or measurements, description:

1. Average mass of adult human heart: (1)= (2) Thickness of the left ventricular wall (3) Thickness of the left atrial wall=		
2. Average mass of human kidney= Avg number of nephrons per kidney=		
3. Average length of esophagus:		
4. Average length and location of the appendix:		
5. For adult human brain: (1) mass (2) #neurons (3) #neuroglia (4) #synapses		
6. Average mass of the lung (1) total (2) R lung= (3) left= (4) alveoli total		
7. Average length of the duodenum (1)= Meaning of the word "duodenum" =		
8. Average mass of human tongue (1)= (2) length=		
9. Average mass of the adult spleen:		
10. Average cardiac: (a) stroke vol= (b) end systolic vol= (c) output		
11. Cause of cardiac sounds: S1 _____ S3 _____ S2 _____ S4 _____		
12. Average opening pressure of aortic valve= Average closing pressure of aortic valve=		
13. Name the 3 branches of the celiac axis:		
14. Average number of Islets of Langerhan:		
15. Average mass adult prostate:		
16. Number of months of gestation when unborn is termed an 'embryo':		
17. Average length of adult trachea and average number of rings:		
18. Average lymph fluid production per day:		
19. Average number of lymph nodes in the body:		
20. Average volume of CSF produced/day (a) (b) and produced by what structure		

D. Next section, give the basic meaning, etymology or brief description of the following:

1. Intussception:				
2. Dartos:				
3. Gangrene:				
4. Five "R's" of inflammation:				
a.	b.	c.	d.	e.
5. Three types of capillaries (1)		(2)	(3)	
6. Haversian canal describe:				
7. Name 5 components of a typical epithelial cell: 1=		2=		
3=	4=	5=		
8. x-ray: Define and give its avg 'wave length'				
9. Ultrasound: define and give name of units use to measure=				
10. Azygous means:				
11. Cysterna chyl: 1=location		2=function		
3=location		3=pathway and where it ends		
12. 96% of the body is made of what four elements:				
a.	b.	c.	d.	
13. Second degree burn meaning:				
14. Healing by 'primary intention':				
15. Meckle's diverticulum "Rule of 2's" :				
a.	b.	c.	d.	e.
16. Orthopedic rule 2's in ordering x-rays for fracture management:				
a.	b.	c.		
17. The 3 common landmarks of the 'safe zone' for inserting a chest drain:				
a.	b.	c.		
18. Sound description of blood flow through a traumatic 'A-V fistula'-				
19. Hyperplasia:				
20. Anaplastic:				

E. Answer/define/describe the following:

1. Name the 5 vessels typically involved in an anterior nose bleed:				
a.	b.	c.	d.	e.
2. Name two main ducts draining the Pancreas:				
a.	b.			
3. Name the two main regulatory proteins of the sarcomere:				
a.	b.			
4. Avg wavelength of visible light (a)				
5. Three branches of the aortic arch:				
1st.	2 nd		3 rd	
6. The seven (7) basic components of a nephron:				
1.	2.	3.		
4.	5.	6.		
7.				
7. Most common site for origin of 'diabetic foot ulcer'				
8. Name the muscles of the rotator cuff:				
9. Name the 4 strap muscles:				
10. Define/describe a Melanoma:				

F. Diagram and label the following:

1. In anterior inferior anatomic view: diagram and label The Circle of Willis	2. In anterior anatomic view, the hepatic portal system:
3. In anterior anatomic view a coronal section of the In anterior anatomic view of the right kidney:	4. In anterior anatomic view the <u>Origin</u> and Arch of the <u>Aorta</u> and its main branches:

5. In anterior anatomic view, draw and label a diagram of the Right and Left Femur.	6. In superior anterior anatomic view draw a diagram of: A-The "Atlas" B-The axis
7. In superior anterior anatomic view diagram and label the colon:	8. In anterior anatomic view, draw a simple diagram showing the segmental anatomy of the Liver and the biliary tree including the gallbladder, pancreas and duodenum and major ducts.

9. Diagram and label in posterior anatomic view the right Right popliteal fossa.	10. Diagram and label in anterior anatomic view the Right Femoral triangle.
11. In anterior anatomic view draw a diagram of the abdomen illustrating the following. A . Mcburney's point; B Rovsing's sign C. Sister Mary Joseph's Nodule D. the region to examine for Murphy's sign E. Location of the 'gastric bubble' F. Right and Left inguinal ligaments	12. Diagram of the thorax in anterior anatomic position illustrating as seen on a typical chest film, the cardiac Image and usual location of the 4 cardiac chambers and location of their valves.

Name & ID No.

Place your choice on this sheet

- | | |
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