

**Final exam of RAD 435 second semester of the year 1435-2014**

**Name:**

**Student number:**



**King Saud University**

**Collage of Applied Medical Science**

**Department of Radiology Science**

**Final Exam 2014/1435 second semester**

**Exam date: Wednesday 29/7/1435-28/5/2014**

**Time: 8-10 am**

**Course: RAD 435 (Level 7)**

**Clinical Applications of fluoroscopy**

<b>Questions</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>Total</b>
<b>Score</b>	Out of 25	Out of 6	Out of 9	Out of 40
<b>Comments</b>				

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**Q1 MCQ (multiple choices question) choose the most appropriate answer:**

- 1- The esophagram is study to exam the \_\_\_\_\_:
  - a) Anatomy of the pharynx and esophagus
  - b) Function of the swallowing in the pharynx and esophagus
  - c) Both a and b
  - d) None of the above
  
- 2- In the upper GI tract examination the following organs usually include:
  - a) Lower part of the esophagus, stomach and duodenum
  - b) Stomach and duodenum
  - c) Lower part of the esophagus and stomach
  - d) None of the above
  
- 3- The barium sulfate is the preferable CM using in the fluoroscopy because:
  - a) It has a short transit time
  - b) It has a long transit time
  - c) It provides a good coating of the internal part of lumen
  - d) None of the above
  
- 4- The barium sulfate is consider as:
  - a) Positive contrast media and appears dark in the image
  - b) Positive contrast media and appears bright in the image
  - c) Negative contrast media and appears dark in the image
  - d) Negative contrast media and appears bright in the image
  
- 5- Related to the anatomy of the esophagus, normally esophagus has \_\_\_\_\_:
  - a) One indentation in the site of oartic arch
  - b) One indentation in the site of left primary bronchus
  - c) Two indentation in the sites of oartic arch and right primary bronchus
  - d) Two indentation in the sites of oartic arch and left primary bronchus

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- 6- In the barium meal study with double contrast, which ones with following positions show the air-fluid line\_\_\_\_\_:
- a) Supine only
  - b) Erect only
  - c) Prone only
  - d) a and b
- 7- in which of the following body habitus, The stomach is located very high and in transverse position?
- a) Hypersthenic
  - b) Sthenic
  - c) Hyposthenic
  - d) All of the above
- 8- Which is one of the following consider as radiolucent contrast media:
- a) Barium sulfate
  - b) CO<sub>2</sub> gas crystals
  - c) Gastrografin
  - d) a and c
- 9- The barium sulfate has following features:
- a) Water soluble contrast media
  - b) Insoluble in water
  - c) Powdered and chalklike
  - d) b and c
  - e) a and c
- 10- Which one of the following pathology require double contrast:
- a) Polyps
  - b) Diverticula
  - c) Ulcer
  - d) All of the above
- 11- The preparation of the patient before Esophagram required:
- (a) NPO 4 hours
  - (b) NPO 8 hours

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- (c) NPO 12 hours
- (d) No preparation required

**12- Water test is one of the technique used to demonstrate:**

- (a) foreign body
- (b) Reflux
- (c) Diverticulum
- (d) Ulcer

**13- The projection which is show the retro gastric space is:**

- (a) LAO
- (b) RPO
- (c) Lateral
- (d) AP

**14- In the barium follow through examination the imaging should be taken until the CM pass the \_\_\_\_\_:**

- (a) ileocecal valve
- (b) Terminal caecum
- (c) The beginning of the colon
- (d) Terminal duodenum

**15- In the barium follow through examination (small bowel series) the image should be taken:**

- (a) Every 15-30 min in the first hours , then every 1 hour behind the first hours
- (b) Every 15-30 min in the first 2 hours, then every 1 hour behind the 2 first hours
- (c) Every 1 hour for the first 3 hours
- (d) Every 1 hour for the first hour, then every 15-30 min behind the first hour

**16- In the right lateral decubitus , the organs which is shown filled with air is:**

- (a) Rt colic flexure and ascending colon
- (b) Sigmoid colon
- (c) Rectus
- (d) Left colic flexure and descending colon

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**17- Postevacuation projection in the barium enema study is a special view taken to demonstrate:**

- (a) Fistula**
- (b) Small polyps**
- (c) Reflux**
- (d) All of the above**

**18- Post-operative T-tube cholangiography is usually done \_\_\_\_\_:**

- (a) To do the cholecystectomy**
- (b) When surgeon may be concerned about residual stones in the biliary ducts**
- (c) To remove the stone from the gallbladder**
- (d) All of the above**

**19- The type of the contrast media use in the ERCP procedure is:**

- (a) Barium sulfate**
- (b) CO<sub>2</sub>**
- (c) Iodinate contrast media**
- (d) All of the above can be used**

**20- The scout film is required in all the fluoroscopic examination to:**

- (a) Determining the correct position of the organ then determine the correct patient position**
- (b) Adjustment the exposure factors**
- (c) A and b**
- (d) None of the above**

**21- The best oblique view shows the gallbladder in the ERCP is:**

- (a) LPO**
- (b) LAO**
- (c) RAO**
- (d) RPO**

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**22- In the MCUG or VCU (voiding cystourethrography) examination the patient before the exam should be:**

- (a) Full bladder**
- (b) Empty bladder**
- (c) Incomplete full bladder**
- (d) None of the above**

**23- Which on of the following is contraindication of the barium enema:**

- (a) Acute appendicitis**
- (b) Had colonoscopy**
- (c) Had sigmoidoscopy**
- (d) All of the above**

**24- For the infant younger than one year the period he/she should be NPO is:**

- (a) 4 hours**
- (b) 6 hours**
- (c) 8 hours**
- (d) 12 hours**

**25- The HSG procedure best demonstrates \_\_\_\_\_:**

- (a) Uterine cavity and Patency of the uterine tube**
- (b) Ovaries and their size**
- (c) Measure width of the pelvis**
- (d) All of the above**

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**Q2**

**(Scenario 1) 55 years old man with perforating ulcer and he has weakness of the muscles, he come to the department to do eosphagram companies with upper GI examination.**

**26- In the scenario 1 What is the preparation of the patient:**

- (a) No preparation requirement**
- (b) NPO for 4 hours**
- (c) NPO for 8 hours**
- (d) Light meal one day before the exam and NPO for 8 hours**

**27- What is the contrast media should be given in scenario 1:**

- (a) Single contrast (barium sulfate)**
- (b) Double contrast (barium sulfate)**
- (c) Single contrast (water soluble CM)**
- (d) Double contrast (water soluble CM)**

**28- What is the medicine should be given to relax the muscles in the scenario 1:**

- (a) Maxalon**
- (b) Glucagon**
- (c) Buscopan**
- (d) methyl cellulose**

**(Scenario 2) 30 years old woman come to the department with second infertility the doctor requested HSG to get an appointment:**

**29- In the (scenario 2) The best time to book her appointment is:**

- (a) During 7- 10 days after the first day of her menstrual period**
- (b) During 7- 10 days after the last day of her menstrual period**
- (c) 14 days from the first day of her menstrual period**
- (d) All of the above are acceptable**

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**30- These days water soluble CM is more preferable than oil based one , which one of the following is correct for the oil-based CM:**

- (a) Has high absorption rate**
- (b) Cause more pain during injection**
- (c) Give a maximum visualization of the uterine structure**
- (d) All of the above**

**31- The average appropriate amount of the CM appropriate in the scenario 2 is:**

- (a) 1 ml**
- (b) 5 ml**
- (c) 10 ml**
- (d) 20 ml**



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**Q3 complete the table with appropriate answer: (9 marks)**

**Q3 1-Match the sentences in the column A with appropriate sentences in the column B: (3 marks)**

	A	B	answers
1	Patient should be NPO 1 hour <b>after</b> the examination of	ERCP	
2	Sim's position is used in	HSG	
3	Lithotomy position is used in	Barium enema	

**Q3 2- In the normal patient when the double contrast is used compare the filling of the barium and air in the stomach parts in the barium meal study between the following 3 projections:(3 mark)**

	Prone	Supine	Erect
Fundus			
Body			

**Q3 3- In the normal patient when double contrast is used in the barium enema study compare the filling of the barium and the air in the following parts in the colon in the supine and prone positions (3 marks)**

	Transverse colon	Ascending colon	Descending colon
Supine			
Prone			

*Thank you*

*Good luck*

*Ruba khushaim*