1. What must be included on every bone X-ray?
   A. Soft tissue
   B. Both R & L markers
   C. All of the above
   D. Both joints

2. When doing an IVP, when would compression be needed?
   A. If the patient has a history of allergy to ionic contrast material
   B. If the patient has had repeated UTIs
   C. If the patient is severely dehydrated
   D. If kidney stones are suspected

3. What view would not be needed to have a complete sinus series?
   A. Towne’s
   B. Water’s
   C. Caldwell
   D. Lateral

4. When are ribs done on expiration?
   A. When the patient is in pain
   B. When costochondritis is suspected
   C. When doing ribs 10-12
   D. When a good inspiration cannot be obtained

5. What does a "Sunrise" view show?
   A. The forehead
   B. The patella
   C. A lateral knee
   D. The olecranon process

6. Which portable exam does not need a grid?
   A. Lateral hip
   B. Knee
   C. Abdomen
   D. Pelvis

7. Why use extremity film and screen combinations?
   A. To reduce patient exposure
   B. To produce an image with better bone detail
   C. To exaggerate fractures
   D. To decrease contrast

8. How much is the tube angled for an AP Axial C spine?
   A. 0° (not angled)
   B. 15° cephalad
   C. 15° caudad
   D. 25° caudad
9. When might you use the 15% rule?
   A. When you want to increase patient exposure
   B. When angling for a Cadwell
   C. When you want to increase penetration
   D. When adjusting for film speed

10. Where is the central ray on an AP hand x-ray directed?
    A. 3 DIP
    B. 3 PIP
    C. 3 MCP
    D. 3 CMC

11. Which diaphragm is higher and why?
    A. Left, because of the liver
    B. Right, because of the liver
    C. Left, because of the stomach
    D. Right, because of the stomach

12. Where does a hiatal hernia occur?
    A. In the groin
    B. Through the abdominal wall
    C. Through the diaphragm
    D. Into the large bowel

13. Which disease process would call for a decrease in technique?
    A. Cardiomegaly
    B. Emphysema
    C. Ascites
    D. Pneumonia

14. What does a "trans-scapular Y" view demonstrate?
    A. A dislocated SC joint
    B. The sternum overlying the heart
    C. The lower ribs
    D. The humeral head between the Acromion & Coracoid processes

15. What view of the stomach best demonstrates the pyloric canal and the duodenal bulb?
    A. AP
    B. Lateral
    C. RAO
    D. LAO

16. The penetrability of quality of the X-ray beam is primarily controlled by?
    A. MA & Distance
    B. KVP & Filtration
    C. Time & MA
    D. Distance & Time
17. The BUN and creatinine levels in a patient's blood will provide an indication of what physiologic function?
   A. Liver function
   B. Renal function
   C. Coagulation factor
   D. Pulmonary function

18. Which oblique best demonstrates the sternum?
   A. RAO
   B. LAO
   C. RPO

19. All of the following will influence magnification EXCEPT:
   A. SID
   B. OID
   C. SOD
   D. Focal-spot size

20. Why is 72° chest preferable to a 40° chest X-ray?
   A. Increased patient exposure
   B. Better lung detail
   C. Decreased heart magnification
   D. Improved contrast

21. What is the most appropriate type of contrast medium for angiography of any blood vessel?
   A. Air
   B. Iodized oils
   C. Barium Sulfate
   D. Water-soluble iodine

22. How is a bolus intravenous injection of contrast media administered?
   A. Rapidly in a single dose
   B. By the drip infusion method
   C. Rapidly in quarters of the total dose
   D. Slowly over a specified period of time

23. Which of the following would best reduce the amount of gonadal radiation to a patient?
   A. Short exposure time
   B. High MAS techniques
   C. Using a grid
   D. Using collimation

24. Grids are used to:
   A. Decrease patient exposure
   B. Increase image density
   C. Decrease scatter reaching the film
   D. Increase penetration
25. If the AEC is used to radiograph L5-S1 in the lateral position and the image is underexposed, what may be the cause?
   A. Minimum reaction time
   B. Plus density was selected
   C. Center chamber was positioned over the spine
   D. Center chamber was positioned posterior to L5 - S1

26. Which of the following changes in technical factors is the MOST similar to doubling the mAs?
   A. Increase kVp by 15%
   B. Increase kVp by 50%
   C. Decrease SID 15%
   D. Decrease SID 50%

27. Radiography of a foreign body made of glass or wood requires the use of:
   A. Low kVp
   B. A decreased exposure time
   C. A direct exposure imaging system
   D. Compression to immobilize the patient

28. In relationship to the trachea, the esophagus is situated:
   A. Lateral
   B. Inferior
   C. Anterior
   D. Posterior

29. For radiography of the colon on a patient with a colostomy, how is the barium administered?
   A. Rectally, as usual
   B. Through the stoma
   C. Barium cannot be administered in these patients
   D. Orally, allowing time for the barium to reach the colon

30. A drop in blood pressure due to extensive blood loss describes what type of emergency medical situation?
   A. Shock
   B. Head injury
   C. Cardiac arrest
   D. Respiratory distress

31. To place a patient in the prone position means to:
   A. Position the patient so they are looking up and supine on the table
   B. Position the patient so they are looking down while laying on the table
   C. Position the patient so they are on their side looking toward the left
   D. Position the patient so they are on their side looking toward the right

32. When X-raying a child, it is extremely important to:
   A. Place a gown on the child
   B. Obtain extra holding help
   C. Place the child in a pigg-o-stat
   D. Place a gonad shield on the patient
33. When placing an infant in the pigg-o-stat it is important to:
   A. Have their arms above their head
   B. Have their arms at their side
   C. Place the child in head first
   D. Use a high speed grid

34. When obtaining a waters view, you will likely see:
   A. Femoral head
   B. Zygomatic arches
   C. Calcaneous
   D. Clavicles

35. In the Trendelenburg position, the patient is:
   A. Standing erect on both feet
   B. Lying down, inclined at a 45 degree angle with the feet higher than the head
   C. Upright with arms at their side and palms facing forward
   D. Flat on a bed with no incline and no pillow