AANA Journal Course Examination Information

Preoperative evaluation and physical assessment of the patient

With this issue of the *AANA Journal*, the first course on the “Preoperative evaluation and physical assessment of the patient” has been completed.

The course consisted of a six-part series, beginning with the April, 1981 issue and concluding in this February, 1982 issue. The series was published as follows:

- Part 1 - Respiratory System (April, 1981)
- Part 2 - Cardiovascular System (June, 1981)
- Part 3 - Endocrine System (August, 1981)
- Part 4 - Renal System (October, 1981)
- Part 5 - The Liver (December, 1981)
- Part 6 - Nervous System (February, 1982)

Each article included a self-assessment quiz, along with a suggested reading list for reference and study.

The examination printed in this issue incorporates material from all six articles. The examination consists of 60 multiple-choice questions, 10 questions from each article. The examination is clearly marked as to which questions refer to which article. Remember, as you are taking the examination, you are free to refer back to the original articles. Note also that there is but one correct answer for each question.

About your Continuing Education Credit . . .

To ensure that a certain level of knowledge has been attained, a minimum of 70% correct answers (42 out of 60) must be achieved. A total of 6 hours of Continuing Education (CE) Credit will be awarded for the successful completion of the examination; partial continuing education credit will not be awarded.

Only those passing the examination will be notified by mail of the successful completion of the course. (The time of this mailing will be dependent on the volume of response; however, notification will be effected prior to the close of the CE year—July 31, 1982.) AANA members will automatically have their 6 CE Credits recorded for them. Individuals with record-keeping contracts through the AANA will also have the credits recorded for them.

The correct answers to the examination will appear in the June, 1982, issue of the *AANA Journal*. By keeping a copy of your answers, you will automatically be able to see how you scored.

How to fill out the answer sheet . . .

It is recommended that you first mark your answers on the examination itself (so that you have your own record). Then, transfer your answers in pencil to the answer sheet, which appears on the other side of this page. Be sure to include your name, address, and AANA identification number. (Non-AANA members should include a $30 tuition fee—payable to the AANA: Journal Course—along with their examination answer sheet.)

Important deadline . . .

The examination must be post-marked by April 30, 1982. No extensions will be granted. Adequate time must be allowed for the examination to be processed to ensure that all CE Credits are recorded prior to the end of the CE year. Mail your answer sheet to: American Association of Nurse Anesthetists

216 Higgins Road

Park Ridge, Illinois 60068

Attn: Journal Course

Much success . . .

We hope that you have found this first *AANA Journal* course to be of value. We wish you well in its successful completion.
### American Association of Nurse Anesthetists

216 Higgins Road  
Park Ridge, Illinois 60068

**AANA Journal Course No. 1 Examination**  
Preoperative evaluation and physical assessment of the patient  
(Issued February, 1982)

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AANA Membership ID Number: ☐ ☐ ☐ ☐ ☐ ☐

☐ If you are not an AANA member, check here. Be sure to enclose your $30 tuition fee payable to AANA.

Please circle one response for each question.  
For example, 36. 1 2 3 4 would indicate that the third alternative was chosen in response to question 36.  
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Please erase completely any changed responses.
AANA Journal Course No. 1 Examination
Preoperative evaluation and physical assessment of the patient

Please circle one response for each question.
After you have marked your answers on this examination, transfer them to the answer sheet provided. Mail your answer sheet to:
American Association of Nurse Anesthetists
216 Higgins Road
Park Ridge, IL 60068
Attn: Journal Course
The examination must be postmarked by April 30, 1982.

Respiratory System

1. Which of the following signs is indicative of chronic hypoxemia?
   1. chronic productive cough
   2. wheezing
   3. digital clubbing
   4. intercostal retraction

2. Which of the following types of breath sounds is abnormal?
   1. adventitious
   2. vesicular
   3. bronchovesicular
   4. bronchial

3. Which of the following pulmonary function screening tests cannot be done at the bedside?
   1. forced vital capacity
   2. peak flow rate
   3. minute volume
   4. closing volume

4. Which of the following statements is true regarding the chest film?
   1. pulmonary dysfunction is always reflected in an abnormal chest film
   2. a normal chest film is indicative of the absence of pulmonary dysfunction
   3. normal lung parenchyma appears as a whitish density
   4. significant pulmonary dysfunction may be present even though the chest film is normal.

5. Which of the following pulmonary risk factors is least amenable to preoperative therapy?
   1. infection
   2. prolonged expiration
   3. bronchospasm
   4. retained secretions

6. The adequacy of ventilation is determined by measuring:
   1. PaCO₂
   2. PaO₂
   3. pH
   4. HCO₃

7. Because of untoward cardiovascular effects (tachycardia, palpitations), the following drug has declined in clinical use:
   1. aminophylline
   2. isoetharine
   3. isoproterenol
   4. terbutaline

8. The COPD patient requires a longer period of time to denitrogenate during preoxygenation because of:
   1. a decreased minute ventilation
   2. an increased physiologic deadspace
   3. an increased intrapulmonary shunt
   4. a decreased FRC

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9. During mechanical ventilation of the COPD patient, the I:E ratio (inspiration to expiration) should be adjusted to allow:
1. equal time for inspiration and expiration
2. a one second inspiration and one and one-half second expiration
3. a one and one-half second inspiration and three second expiration
4. exhalation to continue until no further breath sounds are audible via stethoscope

10. Which of the following modes of ventilatory support is recommended for the COPD patient requiring postoperative mechanical ventilation?
1. controlled ventilation
2. assisted ventilation
3. intermittent mandatory ventilation
4. controlled ventilation with PEEP

11. Which of the following is not a direct determinant of cardiac output?
1. heart rate
2. preload
3. contractility
4. coronary blood flow

12. A hypertensive workup should include a check of lower extremity pressures to rule out:
1. aorto-iliac disease
2. coarctation of the aorta
3. pulsus alternans
4. patent ductus arteriosus

13. Complications which have been reported with the use of the oral agent phenformin in the regulation of adult onset diabetes include:
1. pancreatitis and lactic acidosis
2. cirrhosis and transient elevations of BUN levels
3. prolongation of prothrombin time and activated clotting time
4. gastritis and regional enteritis

14. Rapid ventricular response to atrial tachyarrhythmias may be controlled with:
1. propranolol
2. lidocaine
3. procainamide
4. phenylephrine

15. The anticoagulant that inhibits the production of coagulation factors by blocking vitamin K production in the liver is:
1. aspirin
2. dipyridamole
3. warfarin
4. sulfinpyrazone

16. Prinzmetal’s angina, which is precipitated by mild exercise but not strenuous exercise, seems to be related to:
1. coronary steal syndrome
2. coronary artery spasm
3. propranolol therapy
4. left main coronary artery disease

17. Syncope is most commonly a symptom of rhythm disease but its presence may be indicative of:
1. severe stenosis of the aortic valve
2. polycythemia
3. coarctation of the aorta
4. elevated triglyceride levels

18. “Cannon waves,” large irregular pulsations noted when observing the jugular veins of patients with cardiac disease, result from:
1. simultaneous atrial and ventricular contractions in a patient with heart block or PVCs
2. volume overload in a patient with Epstein’s syndrome
3. an indwelling pulmonary artery catheter
4. atrial fibrillation in a patient with a stenotic mitral valve disease

19. The New York Heart Association has assigned functional and therapeutic classifications to the symptoms of:
1. syncope, angina, shortness of breath
2. claudication and venous stasis
3. fatigue, dyspnea and angina
4. syncope, palpitations and dyspnea

20. In formulating an anesthesia plan for the patient with idiopathic hypertrophic subaortic stenosis one should probably plan to avoid the use of:
1. alpha stimulants
2. beta stimulants
3. alpha blockers
4. beta blockers

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21. A hypothyroid patient who is scheduled for an emergency surgical procedure should receive:
   1. monoiodotyrosine
   2. diiodotyrosine
   3. triiodothyronine
   4. thyroxine

22. If the diabetic patient is receiving chlorpropamide and perioperative insulin coverage is planned, how many hours preoperatively should chlorpropamide be discontinued?
   1. 24 hours
   2. 36 hours
   3. 48 hours
   4. 72 hours

23. A 55-year-old diabetic with a 20-year history of diabetes is physiologically how old?
   1. 55 years
   2. 65 years
   3. 75 years
   4. 85 years

24. A preoperative test which has been used to demonstrate thyroid control is the administration of atropine. The patient is said to be euthyroid when the administration of atropine does not increase the pulse more than:
   1. 20 beats per minute
   2. 30 beats per minute
   3. 40 beats per minute
   4. 50 beats per minute

25. How long will it take to bring a hyperthyroid patient to a euthyroid state by the use of propylthiouracil:
   1. 48 hours
   2. 2-7 days
   3. 2-7 weeks
   4. 7 hours

26. Hyperosmolar hyperglycemic nonketotic diabetic coma is characterized by all except:
   1. hyperglycemia
   2. ketosis
   3. hyponatremia
   4. dehydration

27. Primary aldosteronism (Conn’s disease) is characterized by the following symptom:
   1. hypokalemia
   2. hypotension
   3. hypovolemia
   4. hyponatremia

28. The most widely accepted preoperative test for determining the presence of a pheochromocytoma is the:
   1. histamine test
   2. phentolamine test
   3. 24-hour urine test
   4. curare test

29. Diabetic ketoacidosis may mimic which one of the following:
   1. acute abdomen
   2. status epilepticus
   3. hyperthyroid crisis
   4. Meniere's syndrome

30. In the preoperative management of the diabetic on insulin, the major goal on the morning of surgery is to have the serum glucose at:
   1. 60-80 mg/100ml
   2. 75-150 mg/100ml
   3. 160-210 mg/100ml
   4. 220-270 mg/100ml

31. All of the following may produce a high BUN without kidney disease except:
   1. high protein diet
   2. water intoxication
   3. sepsis
   4. dehydration

32. The kidney’s major function is:
   1. erythropoiesis
   2. metabolism
   3. excretion
   4. regulation (homeostasis)

33. The most potent vasomotor agent known is:
   1. angiotensin
   2. epinephrine
   3. norepinephrine
   4. renin

34. The major factor in regulating glomerular filtration is:
   1. osmolality
   2. acid-base balance
   3. capillary blood pressure
   4. ADH

35. The most sensitive indicator of early renal disease is:
   1. urine osmolality
   2. urea clearance
   3. serum creatinine
   4. creatinine clearance

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36. Which of the following does not cause high renal risk?
1. obstructive jaundice
2. arthritis
3. lupus erythematosus
4. sickle cell disease

37. Juvenile diabetics usually die of renal failure; older diabetics are more likely to die from:
1. coronary artery disease
2. cerebral aneurysm
3. obesity
4. carcinoma

38. In diabetic glomerulosclerosis, which sign usually precedes other renal symptoms by many years?
1. glycosuria
2. low specific gravity
3. high BUN
4. proteinuria

39. Depletion of effective circulatory volume can be ruled out if the patient has:
1. low urine potassium
2. edema
3. distended neck veins
4. good peripheral perfusion

40. The presence of renal dysfunction limits the choice of muscle relaxants. Which of the following statements is most correct:
1. Gallamine and decamethonium can be used with discretion
2. Succinylcholine can be used as in any other patient
3. Curare and pancuronium can be used if repeated doses are titrated to effect by the use of a nerve stimulator
4. Curare and pancuronium are detoxified in the liver and can be used as in any other patient

43. Phagocytosis is carried on by the hepatic:
1. endothelial cells
2. Kupffer cells
3. microsomes
4. mast cells

44. Steatorrhea is due to:
1. high gastrointestinal bleeding
2. low gastrointestinal bleeding
3. decreased fat absorption
4. urobilin

45. Activation of some of the coagulation factors is contingent on the presence of vitamin:
1. A
2. B₁₂
3. E
4. K

46. Dullness of the liver in percussion begins above the right inferior lung border and can be followed downward. The span of liver dullness from the upper to lower border is normally:
1. 7-8cm
2. 9-10cm
3. 11-12cm
4. 12-13cm

47. Gamma globin is synthesized in:
1. liver mast cells
2. lung mast cells
3. reticuloendothelial cells
4. Kupffer cells

48. The most common cause of acute parenchymal liver disease is:
1. infection by a viral agent
2. hepatotoxins
3. extrahepatic biliary obstruction
4. chronic persistent hepatitis

49. A prothrombin time, measured against a control, is considered abnormal if it is longer than:
1. 1 second
2. 2 seconds
3. 3 seconds
4. 4 seconds

50. A key point to remember when administering anesthesia to a patient with parenchymal liver disease is to:
1. maintain deep anesthesia
2. insure an FIO₂ of .2
3. avoid hypotension
4. provide hypercarbia
Nervous System

51. Horner’s syndrome is manifest by pupillary constriction and:
   1. profuse salivation
   2. profuse sweating
   3. ptosis of the lid
   4. drowsiness

52. Cranial nerves III, IV, and VI work together to control:
   1. the tongue
   2. the eyes
   3. the larynx
   4. the sense of equilibrium

53. The doll’s eyelid sign is most commonly seen in:
   1. subarachnoid hemorrhage
   2. pontine lesions
   3. ventricular lesions
   4. metabolic disease

54. The effector cells for efferent motor fibers lie in which of the following:
   1. cardiac muscle
   2. glands
   3. smooth muscle
   4. striated muscle

55. Decorticate posture is often indicative of which of the following:
   1. pontine lesions
   2. medullary lesions
   3. acute bilateral hemisphere disease
   4. substantia gelatinosa

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57. Brain stem lesions produce coma through interference with:
   1. descending fibers
   2. the reticular activating system
   3. terminal synapses
   4. transmitter release

58. In order for cerebral lesions to cause coma, which of the following must be present?
   1. metabolic abnormalities
   2. ventricular involvement
   3. bilateral hemisphere involvement
   4. pons involvement

59. The most common cause of apneusis is:
   1. pontine infarction
   2. cerebellar infarction
   3. CO₂ ↓
   4. hyperpnea

60. Ponto-medullary dysfunction is often demonstrated by:
   1. bradypnea
   2. no response to reflex activity
   3. cluster breathing
   4. hyperpnea

(End of examination)