

TOUCH LEARN

Anatomy and Physiology Revision Tool

The Anatomy and Physiology (A&P) examination contains 50 questions consisting of multiple choice questions and a number of diagrams to label. This question and answer sheet is meant to be used as a tool to help you revise and test your knowledge of the A&P section of the Infant Massage course. It is suggested that in addition to using this tool delegates should also practice drawing and labelling the diagrams in the A&P section.

QUESTIONS

The Skin – Questions

1. The functions of the dermis are:

2. The functions of the epidermis are:

3. How many meissners corpuscles are there in a square millimetre in a child of three years old?

4. Meissner and Pacinian corpuscles arereceptors

5. Ruffini's and Krause corpuscles arereceptors

6. What is the most suitable type of oil to use during infant massage?

7. Why is it important not to use emollients during infant massage?

The Digestive System – Questions

1. What is the name of the process that carries food along the digestive tract?

2. What is the name of the sphincter found at the entrance of the stomach?

3. What type of juices is released in the stomach?

4. In which part of the digestive tract is chemical digestion completed?

5. Name the parts of the large intestine

6. What is the most important point to remember when teaching the abdominal massage to parents?
7. The pancreas is an ----- gland and an..... gland.
8. What is secreted by the Islets of Langerhans pancreas?
9. What are the main functions of the liver?
10. What is the function of bile?

The Urinary System – Questions

1. Name the functions of the urinary system
2. What is the function of the ureters?
3. Urine is 95% water. What else does urine contain?
4. How many litres of blood are filtered in an hour in adults?
5. Why is it important **not** to put pressure on the bladder when massaging the abdomen?

The Respiratory System – Questions

1. What is the process of breathing-in called?
2. What is the common name for the trachea?
3. What is the function of pleural fluid?
4. Why is it important to suggest to parents that when massaging the chest area, their hands do not stroke below the diaphragm?
5. Why is it important to advise parents carefully about positioning their baby when massaging their baby's back

The Cardiovascular System – Questions

1. What is the name of the muscle that separates the two halves of the heart?
2. Name the upper and lower chambers of the heart?
3. Which vessel carries oxygenated blood to the heart?
4. Why is it important not to massage firmly in a downwards direction, when massaging the limbs?
5. What does pulmonary circulation do?
6. What does systemic circulation do?

The Lymphatic System – Questions

1. Where can lymphatic tissue be found in the abdomen?
2. Where are the lymph nodes found in the body?
3. What is lymph?

The Skeletal System – Questions

1. What parts of the skeleton make up the axial skeleton?
2. Give an example of a sesamoid bone
3. Give an example of a short bone
4. What are joints that are freely moveable known as?
5. Why is it important to suggest to parents that they avoid putting any pressure on their baby's spine during the massage routine?

The Muscular System - Questions

1. What causes a muscle to either contract or relax?
2. How do muscles attach to bones?
3. Where are smooth muscles found?
4. Name the functions of the skeletal muscles
5. Why is it important to use strokes such as effleurage when beginning a massage?

The Nervous System – Questions

1. The brain and spinal cord are part of the
2. What is the peripheral nervous system concerned with?
3. Name the functions of the cerebrum
4. Co-ordination, voluntary movement, posture and balance are controlled by which part of the brain?
5. Internal organs are controlled by the -----nervous system
6. The hypothalamus and pituitary gland are apart of the -----system
7. Why is it important to suggest to parents that they should try and keep at least one hand in contact with their baby at all times during massage?

The Endocrine System - Questions

8. What are the main functions of the adrenal glands?
9. What are the functions of the pituitary gland?
10. What does the endocrine system produce?
11. What are essential oils considered to be?

ANSWERS

The Skin

1. Describe the dermis:
 - a. **Contains collagen and elastin**
 - b. **Is tough and stretchy**
 - c. **Contains capillaries**
 - d. **Has a rich network of nerve endings which give us an understanding of touch, pain, temperature, pressure**
 - e. **Hair follicles, sweat glands and sebaceous glands are found in the dermis**

2. Describe the epidermis
 - f. **Is the upper layer of the skin**
 - g. **Has five layers**
 - h. **Bottom layer contains melanocytes, which are stimulated by UV light in sunshine to produce melanin**
 - i. **Top two layers are dead**

3. How many meissners corpuscles are there in a square millimetre in a child of three years old?
80 per square millimetres

4. Meissner and Pacinian corpuscles are **MECHANORECEPTORS**

5. Ruffini's and Krause corpuscles are **THERMORECEPTORS**

6. What is the most suitable type of oil to use during infant massage?
Vegetable oil

7. Why is it important not to use emollients during infant massage?
They may block the hair follicles and cause an infection when massage strokes are applied against the direction of the hair growth

The Digestive System

1. What is the name of the process that carries food along the digestive tract?
Peristalsis

2. What is the name of the sphincter found at the entrance of the stomach?
Oesophageal sphincter

1. What type of juices are released in the stomach?
Gastric juices

2. In which part of the digestive tract is chemical digestion completed?
Small intestine

3. Name the parts of the large intestine
Ascending colon, transverse colon, descending colon, sigmoid colon, rectum, anus

4. What is the most important point to remember when teaching the abdominal massage to parents?

To massage with the direction of the bowels – in a clockwise direction

5. The pancreas is an **endocrine** gland and an **exocrine** gland.

6. What is secreted by the Islets of Langerhans pancreas?

Insulin

7. What are the main functions of the liver?

a. **Detoxification**

b. **Secretion**

c. **Metabolises proteins, fats and carbohydrates**

d. **Storage of iron, copper, vitamins A, B12, folic acid, D, E, K**

e. **Produces plasma proteins in infants**

f. **Elimination of aged or damaged blood cells**

g. **Maintains blood sugar levels by releasing glucose as needed**

8. What is the function of bile?

Breaks down fat

The Urinary System

6. Name the functions of the urinary system

a. **Filtration of blood to remove urea, uric acid, creatinine**

b. **Balancing the body fluids**

c. **Regulation of electrolyte minerals sodium and potassium**

d. **Helps vitamin D production**

e. **Stimulates the production of red blood cells**

f. **Helps control blood pressure**

g. **Controls the blood pH level**

7. What is the function of the ureters?

For urine to pass from the kidneys to the bladder

8. Urine is 95% water. What else does urine contain?

3% waste products, 2% mineral salts

9. How many litres of blood are filtered in an hour in adults?

50 litres

10. Why is it important to put pressure on the bladder when massaging the abdomen?

It may cause discomfort

The Respiratory System

1. What is the process of breathing-in called?

Inhalation

2. What is the common name for the trachea?

Windpipe

3. What is the function of pleural fluid is?

Allows the lungs ease of movement against the ribcage on breathing

4. Why is it important to suggest to parents that when massaging the chest area, the upward direction strokes do not start below the diaphragm?

To prevent any undue pressure on the abdomen, particularly as upward strokes are against the directions the bowels work in

5. Why is it important to advise parents carefully about positioning their baby when massaging their baby's back

So that the baby's neck does not become extended and flexed, so that the upper airways does not become compromised

The Cardiovascular System

1. What is the name of the muscle that separates the two halves of the heart?

Septum

2. Name the upper and lower chambers of the heart?

Atria (upper), Ventricles (lower)

3. Which vessel carries oxygenated blood to the heart?

Pulmonary vein

4. Why is it important not to massage firmly in a downwards direction, when massaging the limbs?

To avoid putting undue pressure on the valves in the veins, which are helping venous return

5. What does pulmonary circulation do?

Transports blood to and from the lungs

6. What does systemic circulation do?

Transports blood to and from the body

The Lymphatic System

1. Where can lymphatic tissue be found in the abdomen?

In the spleen

2. Where are the lymph nodes found in the body?

Mainly around the neck, lower jaw, armpit, abdomen, groin and knees

3. What is lymph?

The clear, yellow fluid part of the blood, known as plasma

The Skeletal System

1. What parts of the skeleton make up the axial skeleton?
Skull, spine, ribs, sternum
2. Give an example of a sesamoid bone
Patella (knee cap)
3. Give an example of a short bone
Carpals, Tarsals
4. What are joints that are freely moveable known as?
Synovial joints
5. Why is it important to suggest to parents that they avoid putting any pressure on their baby's spine during the massage routine?
It is a delicate and sensitive area and any undue pressure could cause discomfort

The Muscular System

6. What causes a muscle to either contract or relax?
Nerve stimulus
7. How do muscles attach to bones?
By tendons
8. Where are smooth muscles found?
Found lining internal organs, blood vessels and the digestive, respiratory and urinary system
9. Name the functions of the skeletal muscles
Movement, assist in the support of joints and posture, produce heat and help to maintain body temperature
10. Why is it important to use strokes such as effleurage when beginning a massage?
To help warm the muscles

The Nervous System

1. The brain and spinal cord are part of the?
Central nervous system
2. What is the peripheral nervous system concerned with?
All nerves situated outside the central nervous system.
3. Name the functions of the cerebrum
Memory, judgement, reasoning, speech, word formation
4. Co-ordination, voluntary movement, posture and balance are controlled by which part of the brain?
Cerebellum

5. Internal organs are controlled by the **Involuntary or Automomic** nervous system
6. The hypothalamus and pituitary gland are apart of the **Endocrine** system
7. Why is it important to suggest to parents that they should try and keep at least one hand in contact with their baby at all times during massage?
So that the baby feels secure at all times and it avoids any undue assault on the peripheral nervous system

The Endocrine System

1. What are the main functions of the adrenal glands?
 - a. **Regulate the correct balance of minerals**
 - b. **Provide energy in emergency situations**
 - c. **Control changes in puberty**
 - d. **Secretes adrenaline and noradrenaline**
2. What are the functions of the pituitary gland?
 - a. **Regulate growth**
 - b. **Regulate the development of the reproductive organs**
 - c. **Regulate the secretions from the ovaries and testes**
 - d. **Regulate the stimulation of mammary glands**
 - e. **Regulate blood pressure**
 - f. **Regulate the re-absorption of water in the kidneys**
 - g. **Regulate the functioning of the adrenal cortex**
3. What does the endocrine system produce?
Hormones and secretions
4. What are essential oils considered to be?
Endocrine disruptors