

## **TESTS ON HUMAN ANATOMY FOR PRE-EXAM TESTING OF STUDENTS**

### **VEGETATIVE NERVOUS SYSTEM**

**1. The vegetative nervous system innervates:**

1. Skeletal muscles;
2. Smooth muscular fibers of internal organs;
3. Smooth muscular fibers of vessels;
4. Glandular tissue;

**2. Specify a location of bodies of sensitive (1st) neurons of vegetative reflex arches:**

1. Spinal ganglion;
2. Posterior horns of the spinal cord;
3. Sensory ganglions of cranial nerves;
4. Vegetative ganglions;

**3. Specify a location of bodies of intermediate neurons of vegetative reflex arches:**

1. Nuclei of the posterior horn of the spinal cord;
2. Intermediolateral nucleus of the spinal cord;
3. Vegetative nucleus of cranial nerves;
4. Spinal ganglions;

**4. Specify a location of bodies of motor neurons of vegetative reflex arches:**

1. Vegetative nucleus of cranial nerves;
2. Intermediolateral nucleus of the spinal cord;
3. Nuclei of anterior horn of the spinal cord;
4. Vegetative ganglions;

**5. Which type of ganglions concern to sympathetic nervous system?**

- Paravertebral (1<sup>st</sup> order);  
Prevertebral (2<sup>nd</sup> order);  
Paraorganic;  
Intraorganic;

**6. Specify functions of vegetative ganglion:**

1. Reflex;

- 1.
- 2.
- 3.
- 4.
2. Switching an impulse from pre- to postganglionar fiber;
3. Receptor;
4. Conducting;

**7. Which segmentary centers are parasympathetic?**

1. Mesencephalic center;
2. Bulbar center;
3. Thoracolumbar center;
4. Sacral center;

**8. Specify vegetative nuclei of bulbar center:**

1. Nucl. accessorius n. oculomotorii;
2. Nucl. Salivatorius superior;
3. Nucl. Salivatorius inferior;
4. Nucl. dorsalis n. vagi;

**9. Specify the location of the episegmentary vegetative centers:**

1. Medulla oblongata;
2. Cerebellum;
3. Hypothalamus;
4. Nuclei of colliculi of the midbrain;

**10. What is true for the vegetative nervous system?**

1. Segmentary location of the centers;
2. Thin myelin coat of nervous fibers;
3. Presence of peripheral reflex arches;
4. Principle of polisegmental innervations of the organs;

**11. What is true for the sympathetic department of VNS:**

1. Short postganglionar fibers;
2. Universality of distribution;
3. Guarding role;
4. Adaptation and trophic function;

**12. To which ganglions of the sympathetic trunk do the white communicating branches pass?**

1. G. cervicale superius;
2. G. cervicale medium;
3. Gg. thoracica;
4. Gg. sacralia;

**13. Specify, which ganglions of a sympathetic trunk have grey connecting branches:**

1. Gg. cervicalia;
2. Gg. thoracica;
3. Gg. lumbalia;
4. Gg. sacralia;

**14. Specify branches, which depart from the sympathetic trunk:**

1. Rr. communicantes albi;
2. Rr. meningei;
3. Rr. communicantes grisei;
4. Nn. splanchnici;

**15. Which nerves contain preganglionar sympathetic fibers?**

1. Rr. communicantes grisei;
2. Rr. communicantes albi;
3. N. petrosus profundus;
4. Nn. splanchnici;

**16. Specify branches, which depart from the superior cervical ganglion:**

1. Rr. communicantes albi;
2. Rr. communicantes grisei;
3. N. vertebralis;
4. N. caroticus internus;

**17. Specify branches, which depart from cervicothoracic (stellate) ganglion:**

1. N. vertebralis;
2. N. cardiacus cervicalis inferior;
3. Nn. carotici externi;
4. Rr. laryngopharyngei;

**18. Specify the branches departing from the internal carotid plexus:**

1. N. petrosus major;
2. N. tympanicus;
3. Nn. caroticotympanici;
4. N. petrosus profundus;

**19. What are the branches of thoracic part of the sympathetic trunk?**

1. N. splanchnicus major;
2. N. phrenicus;
3. Nn. cardiaci thoracici;
4. Rr. communicantes grisei;

- 1.
- 2.
- 3.
- 4.

**20. Which type of fibers can be found in nn. splanchnici major et minor:**

1. Parasympathetic fibers;
2. Sympathetic fibers;
3. Somatomotor fibers;
4. Sensory fibers;

**Which**

- 1.
- 2.
- 3.
- 4.

**21. vegetative ganglions take part in formation of plexus coeliacus?**

- G. mesentericum superius;
- G. mesentericum inferius;
- Gg. coeliaci;
- Gg. aorticorenalia;

**22. Specify the nerves participating in formation of the plexus coeliacus:**

1. N. vagus;
2. N. phrenicus;
3. N. splanchnicus major;
4. Nn. splanchnici lumbales;

**23. Which ganglions are present in plexus hypogastricus inferior?**

1. Gg. coeliaci;
2. G. mesentericum inferius;
3. Gg. sacralia trunci sympathici;
4. Paraorganic pelvic ganglions;

**24. Which structures participate in formation of plexus hypogastricus inferior?**

1. Nn. splanchnici sacrales;
2. Nn. splanchnici pelvini;
3. Plexus mesentericus inferior;
4. N. vagus;

**25. Which ganglions are parasympathetic?**

1. G. oticum;
2. G. pterygopalatinum;
3. G. ciliare;
4. Gg. coeliaci;

**26. Which branches depart from g. pterygopalatinum?**

1. Nn. palatini;
2. Rr. pharyngei;
3. Nn. ciliares breves;
4. Rr. nasales posteriores;

**Which**

- 1.
- 2.
- 3.
- 4.

**27. Which muscles does the parasympathetic nervous system innervate?**

1. M. dilatator pupillae;
2. M. stapedius;
3. M. ciliaris;
4. M. sphincter pupillae;

**28. Which type of fibers is present in vagus nerve?**

1. Somatomotor;
2. Sensory;
3. Parasympathetic;
4. Sympathetic;

**29.           type of fibers is present nn. splanchnici pelvini?**

- Somatomotor;  
Sensory;  
Sympathetic;  
Parasympathetic;

**30.           Where is localization of bodies of first neurons of interceptive analyzer?**

1. Vegetative ganglions;
2. Spinal ganglions;
3. Ganglions of cranial nerves;
4. Intermediolateral nucleus of the spinal cord;

**31. Where bodies of second neurons of interceptive analyzer are situated?**

1. Nuclei of posterior horns of the spinal cord;
2. Nucl. gracilis et cuneatus;
3. Nuclei intermediolaterales of the spinal cord;
4. Nuclei of anterior horns of the spinal cord;

**32. Where is the cortical center of interceptive analyzer:**

1. Gyrus precentralis;
2. Gyrus temporalis superior;
3. Gyrus angularis;
4. Gyrus postcentralis;

**Which**

- 1.
- 2.
- 3.
- 4.

**33. Specify sympathetic and parasympathetic segmentary centers for organs of the abdominal cavity innervation:**

1. Nuclei intermediolaterales of thoracic segments of the spinal cord;
2. Nuclei intermediolaterales of lumbar segments of the spinal cord;
3. Nuclei intermediolaterales of sacral segments of the spinal cord;
4. Nucl. dorsalis n. vagi;

**34. Specify the parasympathetic segmentary centers for organs of pelvis:**

1. Nuclei intermediolaterales of lumbar segments of the spinal cord;
2. Nuclei intermediolaterales of sacral segments of the spinal cord;
3. Nucl. dorsalis n. vagi;
4. Vegetative ganglions of the pelvis;

**35. Specify the locations of sensory neurons for organs of pelvis:**

1. Plexus hypogastricus inferior;
2. G. mesentericum inferius;
3. Lumbar spinal ganglions;
4. Sacral spinal ganglions;

**36. Specify ganglion from which the secretory fibers to the lacrimal gland begin:**

1. G. ciliare;
2. G. pterygopalatinum;
3. G. oticum;
4. G. submandibulare;

**37. nerve innervates the parotid gland pass?**

- N. petrosus major;  
N. petrosus minor;  
Chorda tympani;  
N. petrosus profundus;

**38. In structure of which nerve do the preganglionar parasympathetic fibers for sublingual salivary gland pass?**

1. N. petrosus minor;
2. N. petrosus major;
3. N. tympanicus;
4. Chorda tympani;

**Which**

- 1.
- 2.
- 3.
- 4.

**39. Specify the sympathetic and parasympathetic segmentary centers for innervation of heart:**

1. Cervical ganglions of the sympathetic trunk;
2. Nuclei intermediolaterales of the upper thoracic segments of the spinal cord;
3. Nuclei intermediolaterales of the lower thoracic segments of the spinal cord;
4. Nucl. dorsalis n. vagi;

**40. Specify vegetative ganglia from which postganglionar sympathetic fibers to the heart begin:**

1. G. cervicale superius;
2. G. cervicale medium;
3. G. cervicale inferius;
4. Gg. thoracica trunci sympathici;

**41. Specify the locations of sensory neurons for the heart:**

1. Ganglions of the sympathetic trunk;
2. Cervical spinal ganglia;
3. Thoracic spinal ganglia;
4. Ganglia of the vagus nerve;

**42. Specify vegetative ganglia from which postganglionar sympathetic fibers to lungs begin:**

1. G. cervicale superius;
2. G. cervicothoracicum;
3. Gg. thoracica trunci sympathici;
4. Gg. terminalia;

**43. Specify the segmentary centers of sympathetic and parasympathetic innervation of sigmoid colon:**

1. Nucl. dorsalis n. vagi;
2. Nuclei intermediolaterales of the lower thoracic segments of the spinal cord;
3. Nuclei intermediolaterales of the upper lumbar segments of the spinal cord;
4. Nuclei intermediolaterales of the sacral segments of the spinal cord;

- 1.
- 2.
- 3.
- 4.

**44. Specify nervous fibers, supplying rectum:**

Sensory;  
Somatomotor;  
Parasympathetic; Sympathetic;

**45. Specify vegetative ganglions from which the postganglionar sympathetic fibers to the testis begin:**

1. Gg. trunci sympathici;
2. Gg. aorticorenalia;
3. G. mesentericum inferius;
4. Plexus hypogastricus inferior;

**46. Specify the sympathetic and parasympathetic segmentary centers for the urinary bladder innervation:**

1. Nucl. dorsalis n. vagi;
2. Nuclei intermediolaterales of the lower thoracic segments of the spinal cord;
3. Nuclei intermediolaterales of the lumbar segments of the spinal cord;
4. Nuclei intermediolaterales of the sacral segments of the spinal cord;

**47. Specify vegetative ganglions, from which the postganglionar fibers to urinary bladder begin:**

1. Gg. coeliaci;

2. G. mesentericum inferius;
3. Plexus hypogastricus inferior;
4. Gg. terminalia;

**Key to the test on “Vegetative nervous system”**

|            |      |            |      |            |      |            |      |            |      |
|------------|------|------------|------|------------|------|------------|------|------------|------|
| <b>1.</b>  | 234  | <b>11.</b> | 24   | <b>21.</b> | 134  | <b>31.</b> | 12   | <b>41.</b> | 1234 |
| <b>2.</b>  | 134  | <b>12.</b> | 3    | <b>22.</b> | 1234 | <b>32.</b> | 14   | <b>42.</b> | 23   |
| <b>3.</b>  | 23   | <b>13.</b> | 1234 | <b>23.</b> | 4    | <b>33.</b> | 14   | <b>43.</b> | 34   |
| <b>4.</b>  | 4    | <b>14.</b> | 34   | <b>24.</b> | 123  | <b>34.</b> | 2    | <b>44.</b> | 1234 |
| <b>5.</b>  | 12   | <b>15.</b> | 24   | <b>25.</b> | 123  | <b>35.</b> | 1234 | <b>45.</b> | 2    |
| <b>6.</b>  | 1234 | <b>16.</b> | 24   | <b>26.</b> | 14   | <b>36.</b> | 1    | <b>46.</b> | 34   |
| <b>7.</b>  | 124  | <b>17.</b> | 12   | <b>27.</b> | 34   | <b>37.</b> | 2    | <b>47.</b> | 234  |
| <b>8.</b>  | 234  | <b>18.</b> | 34   | <b>28.</b> | 123  | <b>38.</b> | 4    |            |      |
| <b>9.</b>  | 123  | <b>19.</b> | 134  | <b>29.</b> | 24   | <b>39.</b> | 24   |            |      |
| <b>10.</b> | 234  | <b>20.</b> | 24   | <b>30.</b> | 123  | <b>40.</b> | 1234 |            |      |