**MATERS PU COLLEGE, HASSAN**

**BIOLOGY PRACTIC QUESTIONS**

**TOPIC: Structural organization in Animals**

1. **Select the correct statement from the ones given below with respect to *Periplaneta Americana***

a) Nervous system located dorsally, consists of segmental arranged ganglia joined by a pair of longitudinal connectives

b) Males bear a pair of short thread like anal styles

c) There are 16 very long malphighian tubules present at the junction of midgut and hindgut

d) Grinding of food is carried out only by the mouth parts.

1. **Tendon and ligament are examples of**

a) Dense irregular connective tissue

b) Dense regular connective tissue

c) Loose connective tissue

d) Special connective tissue

1. **Respiratory organs of Cockroach are called**

a) Maxillae b) Spiracles c) Mandibles d) Labrum

1. **Read the following statements and choose the correct option**

i)Blood cells secrete fibres of structural proteins called collagen or elastin

ii) Neurological cells protect and support the nephrons

iii) Osteocytes are present in spaces called lacunae

iv) Striated muscle fibres are bundled together in parallel fashion

v) Biceps are involuntary and striated

a) (iii) and (iv) alone are wrong

b) (ii) and (iv) alone are wrong

c) (i) and (iii) alone are wrong

d) (i), (ii) and (v) alone are wrong

1. **Mushroom gland in cockroach is located in**

a) 2 – 5 segments b) 3 – 5 segments

c) 6 – 7 segments d) 7 – 8 segments

1. **The ciliated columnar epithelial cells in humans are known to occur in**

a) Bile duct and oesophagus

b) Fallopian tubes and urethra

c) Eustachian tube and stomach lining

d) Bronchioles and Fallopian tubes

1. **In cockroach, gizazard contains**
2. Four teeth b. Six teeth c. eight teeth d. Five teeth
3. **In male cockroaches, sperms are stored in which part of the reproductive system?**
4. Testes (b) Vas deferens (c) Seminal vesicles (d) Mushroom glands
5. **Which statement is incorrect?**

a) Mast cells and basophiles secrete histamine and heparin

b) Mast cells are long lived, basophiles are short lived

c) Mast cells are smaller than basophiles with a bilobed nucleus

d) Mast cells are relatively sessile, basophiles are mobile

**10. Secretion of tears, milk, sweat and oil are functions of which of the following tissues**

a) Epithelial b) Nervous c) Loose connective d) Lymphoid

1. **Fertilized eggs of *P. americana* are encased in**

a) Ootheca b) Cocoon c) Phallomere d) Genital chamber

1. **Clitellum of Pheretima is thick girdle that is…**
2. Non-glandular around 14-16 segments
3. Glandular around 14-16 segments
4. Glandular around 16-18 segments
5. Non- Glandular around 16-18 segments
6. **Which of the following features is used to identify a male cockroach from a female cockroach?**
7. Presence of aboat shaped sternum on the 9th abdominal segment.
8. Presence of caudal styles
9. Forewings with darker tegmina
10. Prescence of anal cerci
11. **The non-keratinized stratified squamous epithelium is present in**

a) Epidermis of skin of hand and vertebrate

b) Oral Cavity

c) Vagina, cervix and oral cavity

d) Vagina and cervix

**15. Match the columns**

|  |  |
| --- | --- |
| 1. Cartilage | p. Neurilemma |
| 1. Bone | q. Sarcolemma |
| 1. Muscle fibre | r. perichondrium |
| 1. Neuron | s. Periosteum |
|  | t. pericardium |

1. 1-r, 2-s, 3-q, 4-p b. 1-p, 2-q, 3-r, 4-s c. 1-s, 2-r, 3-q, 4-p d. 1-s, 2-r, 3-p, 4-q
2. **What external changes are visible after the last moult of a cockroach nymph?**
3. Mandibles become harder
4. Anal cerci develop
5. Both fore wings and hind wings develop
6. Labium develops
7. **The terga, sterna and pleura of cockroach body are joined by**
8. Cartilage b. Cementing glue c. Muscular tissue d. Arthrodial membrane
9. **Colleterial gland is present in**
10. Male cockroach b. Female cockroachc. Both the sexes d. None of the two
11. **In male cockroach, sperms are stored in which part of the reproductive system?**
12. Seminal vesicles b. Mushroom glands c. Testes d. Vas deferens
13. **Compared to those of humans, the erythrocytes in frog are**
14. Without nucleus but with hemoglobin
15. Nucleated and with hemoglobin
16. Very much smaller and fewer
17. Nucleated and without hemoglobin
18. **Blood glands of Pheretima take part in**
19. Formation of red blood corpuscles
20. Formation of phagocytes
21. Maintenance of blood volume
22. Maintenance of blood circulation
23. **The function of the gap junction is to** Top of Form
24. facilitate communication between adjoining cells by connecting the cytoplasm for rapid transfer of ions, small molecules and some large molecules
25. stop substance from leaking across a tissue
26. Performing cementing to keep neighboring cells together
27. separate two cells from each other
28. **The kind of epithelium which forms the inner walls of blood vessels**
29. Cuboidal epithelium
30. Columnar epithelium
31. Ciliated epithelium
32. Squamous epithelium
33. **Areolar connective tissue joins:**
34. Fat body with muscles
35. Integument with muscles
36. Bones with muscles
37. Bones with bones
38. **Excretion in tadpole is**
39. Ammonotelic b. Ureotelic c. Urecotelic d. None of these
40. **Number of spiracles found in cockroach are**
41. 5 thoracic, 3 abdominal
42. 3 thoracic, 5 abdominal
43. 8 thoracic, 2 abdominal
44. 2 thoracic, 8 abdominal
45. **Which of the following is correct regarding respiration in adult frog?**
46. In water – Skin, gills
47. On land – Skin, buccal cavity
48. In water – Skin, buccal cavity
49. On land – Skin, lungs, gills
50. **Which structure of Pheretima plays the role of liver?**
51. Calciferous cells
52. Chloragogen cells
53. Clitellar cells
54. Gland cells
55. **Which of the following connective tissues is avascular, aneural, and has limited repair capabilities?**
56. Cartilage b. Bone c. Ligament d. tendon
57. **Which one of the following correctly describes the location of some body parts in the earthworm Pheretima?**
58. Four pairs of spermathecae in 4-7 segments
59. One pair of ovaries attached at intersegmental septum of 14th and 15th segments
60. Two pairs of testes in 10th and 11th segments
61. Two pairs of accessory glands in 16-18 segments

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| **Sl.no** | Key answer | **Sl.no** | Key answer |
| **1** | B | **16** | C |
| **2** | B | **17** | D |
| **3** | B | **18** | B |
| **4** | D | **19** | A |
| **5** | C | **20** | B |
| **6** | D | **21** | B |
| **7** | B | **22** | A |
| **8** | C | **23** | D |
| **9** | C | **24** | B |
| **10** | A | **25** | A |
| **11** | A | **26** | D |
| **12** | B | **27** | B |
| **13** | B | **28** | B |
| **14** | C | **29** | A |
| **15** | A | **30** | C |

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