

## Topic :- Animal Kingdom

- 1 (a)  
In *Pheretima posthuma* (earthworm), septae are absent between 3/4 and 9/10 segments.
- 2 (c)  
Oviducts of frog are independently developed by **Mullerian ducts**.
- 3 (b)  
Drones are the male honey bees, developed parthenogenetically and have a life span of about five weeks (or 1-2 months).
- 4 (c)  
Metatherians are pouched mammals. The complete development of embryo takes place in abdominal pouch or marsupium.
- 5 (c)  
A clasper is a male anatomical structure found in some groups of animals, and used in mating. Male cartilaginous fish like shark have claspers formed from the posterior portion of their pelvic fin which serves as intromittent organs used to channel semen into the female's cloaca during mating.
- 6 (d)  
Platyhelminthes (*e.g., Planaria*, liver fluke and tapeworm) possess the simplest tubular excretory system called **protonephridia** flame cells or solenocytis. Excretory material is ammonia in aquatic flatworms.
- 7 (c)  
Ommatidium is the basic unit of arthropod compound eye. It comprises a cornea lens, crystalline cone, a group of usually 7-8 retinal cells radially arranged around a central rhabdome. Ommatidia serve the purpose of photoreception.
- 8 (a)  
In the blood of *Periplaneta*, there is no respiratory pigment because air is conducted directly to the body tissues.

- 9 **(b)**  
*Wuchereria bancrofti* (the filarial worm) belongs to phylum-Nemathelminthes.
- 10 **(c)**  
The given cross-section is of *Planaria* (acoelomate), a flatworm. Flatworms are devoid of cavities in between the alimentary canal and body wall, hence are acoelomate.
- 11 **(c)**  
Typhlosolar region in earthworm is from 27 segments onwards and continue upto last 23-25 segments in front of anus. Typhlosole increases the absorptive surface area.
- 12 **(b)**  
When the coelom arises as a result of a split in the mesoderm sheet, it is called schizocoel. In enterocoel, the coelom arises as an outgrowth of the enteron. The pouches pinch off and enlarge until they squeeze out off the blastocoel.  
Schizocoel is seen in Annelida, Arthropoda, Mollusca and Chordates. Echinodermata are enterocoelomates
- 13 **(b)**  
The middle ear of frog consists of only a single rod shaped bone called **columella auris** which extend across the tympanic chamber from tympanic membrane to fenestra ovalis. Columella auris is also present in reptiles and birds. It transmits sound to the inner ear and homologous to the mammalian stapes.
- 14 **(d)**  
Most of the species of true toad belongs to genus *Bufo*.
- 15 **(b)**  
The oxygenated blood from two lungs is collected by right and left pulmonary venis, which unite to form a common pulmonary vein (pulmocutaneous vein) which open directly into the left auricle on the dorsal side.
- 16 **(b)**  
Ventral nerve cord is common to leech (Annelida), cockroach and scorpion (Arthropoda).
- 17 **(d)**  
**Archaeocytes** are the totipotent cells, which provide great regenerating power to sponges. Sex cells (sperm and ova) arise from undifferentiated archaeocytes.
- 18 **(b)**  
*Necturus* is also known as mud puppy and belongs to sub-class-Urodela

- 19 **(d)**  
Metamorphosis is a change from juvenile to adult stage in which larval stage is quite different from adult stage. In retrogressive metamorphosis, the larva possesses advanced characters which are lost during the development and adult is either sedentary or degenerated with primitive characters. All urochordates display retrogressive metamorphosis
- 20 **(b)**  
Aves have two additional chambers to the alimentary canal: the crop and the gizzard. Birds eat tiny pebbles that lodge in the gizzard and help the muscular gizzard in crushing food. Birds have 12 pairs of cranial nerves

PE

<b>ANSWER-KEY</b>										
<b>Q.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>A.</b>	<b>a</b>	<b>c</b>	<b>b</b>	<b>c</b>	<b>c</b>	<b>d</b>	<b>c</b>	<b>a</b>	<b>b</b>	<b>c</b>
<b>Q.</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
<b>A.</b>	<b>c</b>	<b>b</b>	<b>b</b>	<b>d</b>	<b>b</b>	<b>b</b>	<b>d</b>	<b>b</b>	<b>d</b>	<b>b</b>

**PE**