1. (A) : Septal nephridia in Pheretima eliminates nitrogenous wastes from blood as well as coelomic fluid (**R**) : They are enteronephric 1) Both A & R are true and R explains A 2) Both A & R are true & R does not explains A 3) A is true, R is false 4) A is false, R is true 2. (A) : Septal nephridia in Pheretima collect the eleocytes ingested by the amoebocytes to the exterior (R) : They are open type 1) Both A & R are true and R explains A 2) Both A & R are true & R does not explains A 3) A is true, R is false 4) A is false, R is true 3. (A): Seminal vesicles of earthworm are called septal pouches (R): These are formed from septa 1) Both A & R are true and R explains A 2) Both A & R are true & R does not explains A 3) A is true, R is false 4) A is false, R is true (A): Only one earthworm hatches out from a cocoon 4. (R): In cocoon only one egg is present 1) Both A & R are true and R explains A 2) Both A & R are true & R does not explains A 3) A is true, R is false 4) A is false, R is true 4. (A): Blood in dorsointestinal blood vessels contains more nutrients in Pheretima (R) : In the intestinal region of Pheretima each segment contains two pairs of dorsontestinal blood vessels 1) Both A & R are true and R explains A 2) Both A & R are true & R does not explains A 3) A is true, R is false 4) A is false, R is true (A) : Earthworms are described as ureotelic animals 5. (R) : Urea is the major excretory product in earthworms 1) Both A & R are true and R explains A 2) Both A & R are true & R does not explains A 3) A is true, R is false 4) A is false, R is true (A): In Pheretima, coelomic fluid cannot be exchanged between 10<sup>th</sup> and 11<sup>th</sup> segments 6. (R): 10<sup>th</sup> and 11<sup>th</sup> segments in Pheretima are separated by non perforated septum 1) Both A & R are true and R explains A 2) Both A & R are true & R does not explains A 3) A is true, R is false 4) A is false, R is true 7. Following are the statements about nephridia in Pheretima 1. Micro nephridia are attached to the inner surface of body wall 2. The straight lobe of the septal nephridium is continued into the distal limb of the twisted loop 3. Pharyngeal nephridia are as large as the septal nephridia but like the integumentaries they are exonephric Which of the above are correct 2. Only 1&2 are true All are true 3 Only 1&3 are true 4. Only 2&3 are true Glands of Pheretima helpful for the formation of spermatophores are 1. Accessory glands 2. Prostrate glands

	2 Lymph glands A Plood glands
0	Conclic present on the dereal side of alignmentary conclin Dispetting are
9.	1 Supra oesonbageal ganglia
	2. Sub pherwageel genglie
	2. Sub pharyngeal ganglia
	5. Supra pharyngeal gangha
10	4. Segmental gangna
10.	In Prieretima, number of gangia present in the nerve ring
11	1.4 2.2 5.12 4.8
11.	1 Enidermal recentors
	2 Photo receptors 2 Buccal receptors
	4. Chemo receptors
12	In Pheretima, nerve ring is formed around
14.	1 Pharway 2 Oesonbagus
	3 Gizzard A Buccal chamber
13	Double ventral nerve cord in Pheretima starts from
13.	1 $3^{rd}$ segment 2 $4^{th}$ segment
	$3.5^{\text{th}}$ segment $4.2^{\text{nd}}$ segment
14	Distinguishing feature of the huccal recentor cells in Pheretima is
14.	1 Presence of 'L' shaped lens
	2 Connected ti nerve fibre
	3 Presence of nuclei in deeper part
	4 Consisting of a hvaline substance
15.	Number of nerves arise from cerebral ganglia in Pheretima is
101	1 2 pairs 2.2
	3 8  to  10 $4 8  to  10  pairs$
16.	In Pheretima, double ventral nerve cord is absent in the segments
	1. $4^{\text{th}}$ to last 2. $1^{\text{st}}$ . $2^{\text{nd}}$ and $4^{\text{th}}$
	3. $1^{\text{st}}$ , $2^{\text{nd}}$ and $3^{\text{rd}}$ 4. $3^{\text{rd}}$ and $4^{\text{th}}$
17.	Lens of photoreceptor in Pheretima is
	1. Phaeosome 2. Episome
	3. Mesosome 4. Endosome
18.	Double ventral nerve cord in Pheretima arises from
	1. Supra oesophageal ganglia
	2. Sub pharyngeal ganglia
	3. Supra pharyngeal ganglia
	4. Sub oesophageal ganglia
19.	Cerebral ganglia in Pheretima are present in the segment
	1. $2^{nd}$ 2. $3^{rd}$ 3. $4^{th}$ 4. $5^{th}$
20.	Prostomium of Pheretima receives nerves from
	1. Supra oesophageal ganglia
	2. Sub pharyngeal ganglia
	3. Supra pharyngeal ganglia
	4. Sub oesophageal ganglia
21.	In Pheretim, segment with nerve ring as well as double ventral nerve cord is
	1.4 <sup>th</sup> segment 2. 3 <sup>rd</sup> segment
/	$\sqrt{3}$ 5 <sup>th</sup> segment 4. 2 <sup>nd</sup> segment
22,	In Pheretima epidermal receptors are abundant on
$\mathcal{A}$	T. Dorsal and ventral sides
Eg-	2. Lateral and dorsal sides
1	3. Antero dorsal sides

4. Ventro lateral sides

#### 23. Afferent fibres of peripheral nerves in Pheretima connects

- 1. Receptor to effector organs
- 2. Ventral nerve cord to effector organs
- 3. Receptor to ventral nerve cord
- 4. Ventral nerve cord to receptor
- 24. Receptors with single cell in Pheretima are
  - 1. Photoreceptros
  - 2. Epidermal receptors
  - 3. Buccal receptors 4. Mechano receptors
- 25. Number of segmental ganglia in the pre-clitellar region of Pheretima is
  - 1. 10 pairs 2. 9 pairs
  - 3. 13 pairs 4. 12 pairs
- **Epidermal receptors in Pheretima acts as** 26.
  - 1. Chemoreceptors 2. Auditory receptors
  - 3. Gustatory receptors
    - 4. Olfactory receptors
- Number of segments in Pheretima with only one type of nephridia is 27.
  - 3.9 1.8 2.14 4.15
- 28. Part of septal nephridium that joins with the septal excretory canal is
  - 1. Proximal limb of the twisted loop
  - 2. Short straight lobe
  - 3. Distal limb of the twisted loop
  - 4. Terminal nephridial duct
- 29. V-shaped nephridia in Pheretima are
  - 1. Pharyngeal nephridia
    - 2. Typical nephridia 3. Septal nephridia
    - 4. Integumentary nephridia
- 30. Position of supra- intestinal excretory canals in Pheretima is
  - 1. Above the dorsal blood vessel
  - 2. Below the intestine 3. Above the intestine 4. Below the ventral blood vessel

#### Pharyngeal nephridia in Pheretima lie on either side of 31.

- 1. Buccal chamber and pharynx
- 2. Pharynx and oesophagus
- 3. Oesophagus and gizzard
- 4. Pharynx and gizzard

#### Closed nephridia in Pheretima are 32.

- 1. Pharyngeal and integumentary nephridia
- 2. Pharyngeal and septal nephridia
- 3. Septal and integumentary nephridia
- 4. Integumentary and typical nephridia

#### 33. In Pheretima, nephridia absent in segments with blood glands are

- 1. Pharyngeal nephridia
  - 2. Integumentary nephridia
  - 3. Septal nephridia 4. All

#### 34. Number of septa in Pheretima that do not bear septal nephridia is 4.14

1.9 2.10 3.11

# In Pheretima, nephridia are absent in

- 1. First 3 segments 2. Clitellar segments
- 3. First 2 segments

4. Post-clitellar segments

#### 36. Closed and exonephric nephridia are

- 1. Pharyngeal nephridia
- 2. Typical nephridia
- 3. Septal nephridia
- 4. Integumentary nephridia
- 37. In Pheretima, pair of ducts from the pharyngeal nephridia of the sixth segment open into
  - 1. Pharynx 2. Buccal chamber
    - 3. Oesophagus 4. Gizzard
- 38. In Pheretima, nephridia eliminate excretory wastes both from the blood and the coelomic fluid are
  - 1. Pharyngeal nephridia
  - 2. Typical nephridia
  - 3. Septal nephridia
  - 4. Integumentary nephridia

### 39. Enteronephric nephridial system of Pheretima is an adaptation for

- 1. Conservation of urea
- 2. Conservation of water
- 3. Elimination of water
- 4. Elimination of faeces

### 40. Enteronephric nephridia in Pheretima are

- 1. Pharyngeal and integumentary nephridia
- 2. Pharyngeal and septal nephridia
- 3. Septal and integumentary nephridia
- 4. Integumentary and typical nephridia

### 41. Based on excretory product Pheretima is described as

- 1. Hypotonicand uricotelic
- 2. Hypertonic and uricotelic
- 3. Hypertonic and uriotelic
- 4. Hypotonic and uriotelic

### 42. Forest of nephridia in Pheretima is

- 1. Typhlosolar region 2. Cliteflar region
- 3. Pre-clitellar region 4. Post-clitellar region
- 43. Chlorogogen cells are derived from
- 1. Outer coelomic epithelium
  - 2. Epidermis
  - 3. Inner coelomic epithelium
  - 4. Endodermis

# 44. Pharyngeal nephridia in Pheretima opens into

- 1. Buccal chamber and pharynx
- 2. Pharynx and oesophagus
- 3. Oesophagus and gizzard
- 4. Pharynx and gizzard

### 45. Tufted nephridia in Pheretima are

- 1. Pharyngeal nephridia
- 2 Typical nephridia
- 3. Septal nephridia
- 4. Integumentary nephridia

## Terminal nephridial duct of sepal nephridia is the continuation of

1. Proximal limb of the twisted loop

2. Nephrostome 3. Distal limb of the twisted loop 4.Neck 47. Total number of pharyngeal nephridia in Pheretima is 2. 200 to 250 1.3 pairs 3. 80 to 100 4. Many **48.** Septal excretory canals in Pheretima directly opens 1. Into intestine 2. To out side 3. Into supra intestinal excretory canal 4. Into coelom 49. Number of septal excretory canals in each segment is 1. Many 2. 2 pairs 3. 2 4.1 50. In Pheretima, the nitrogenous wastes from the blood supplied to the intestinal wall are collectd by 1. Septal nephridia 2. Chlorogogen cells 3. Pharyngeal nephridia 4. Eleocytes In Pheretima, first septum to which septal nephridia are attached lies between the segments 51. 3. 15/16 1.4/5 2. 14/15 4. 5/6 Number of pre clitellar segments in Pheretima with micro pephridia and without pharyngeal 52. nephridia 1.8 2.10 3.11 4.13 53. **Open and enteronephric nephridia** 1. Pharyngeal nephridia 2. Typical nephridia 3. Septal nephridia 4. Integumentary nephridia Detached chlorogogen cells loaded with excretory wastes are called 54. 1. Phagocytes 2. Mucocytes 3. Eleocytes 4. Amoebocytes Nephridia absent in Pheretima are-55. 1. Pharyngeal nephridia 2. Typical nephridia 3. Septal nephridia 4. Integumentary nephridia Closed and enteronephric nephridia in Pheretima are 56. 1. Pharyngeal nephridia 2. Typical nephridia 3. Septal nephridia 4. Integumentary nephridia In Phertima phagocytised eleocytes are sent out through 57. 1. Pharyngeal nephridia 2. Typical nephridia) 3. Septal nephridia 4. Integumentary nephridia In Pheretima pharyngeal nephridia present on either side of oesophagus but opens into 58. pharynx are present in the segment 2.5 3.6 4.7 1.4 In Pheretima pharyngeal nephridia present on either side of oesophagus but opens into 59. pharynx are present in the segment 1.4 2.5 3.6 4.7

Number of common nephridial ducts that open into pharynx of Pheretima is

1. 1 pair 2.4 pairs	3. 3 pairs	4. 2 pairs
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