

ZOOLOGY 2006

41. *Statement (S)* : Linnaeus system of animal classification is essentially an artificial system, yet it has become a natural system.
Reason (R) : Similarities forming the basis in Linnaean system are indicative of genetic relationship.
 (1) Both S and R are true and R is the correct explanation to S
 (2) Both S and R are true, but R cannot explain S
 (3) Only S is true and R is not true
 (4) S is not correct and R cannot explain S
42. The natural selection that acts against change in the form and keeps the population constant through the time is :
 (1) Directional (2) Disruptive (3) Not acting (4) Stabilizing
43. Lepas, Limulus, Lepisma and Scolopendra have jointed appendages. Which of the below given set of organisms are aquatic and respire through gills :
 (1) Lepas and Lepisma (2) Lepas and Limulus
 (3) Limulus and Scolopendra (4) Scolopendra and Lepas
44. The animal as an adult secondarily acquires radial symmetry when its bilaterally symmetrical larva metamorphoses, is :
 (1) Polygordius (2) Gorgonia (3) Gorgonocephalus (4) Pila
45. Match the following :
Set – I **Set – II**
 a. Columnar epithelium 1. Larynx
 b. Ligaments 2. Eosinopaenia
 c. Chondroblast 3. Elastic tissue
 d. Acidophils 4. Urinary bladder
 e. Uninucleated spindle shaped muscle fibers 5. Microvilli
 (1) a-5, b-3, c-1, d-2, e-4 (2) a-5, b-1, c-3, d-4, e-4
 (3) a-1, b-5, c-3, d-2, e-4 (4) a-5, b-3, c-1, d-4, e-2
46. The vector of the parasite that causes calabar swelling of the eye is :
 (1) Triatoma infestans (2) Chrysops dimidiata
 (3) Bulinus tenella (4) Phlebotomus sergenti
47. A triploblastic pseudocoelomate, bilaterally symmetrical human parasite which is oviparous and the transmission is by contact. It is :
 (1) Filarial worm (2) Hook worm
 (3) Palalo worm (4) Tape worm
48. In pheretima, the lateral hearts that connect the supra oesophageal blood vessel with ventral blood vessel are located in these segments :
 (1) 7 and 9 (2) 18 and 19 (3) 14 and 15 (4) 12 and 13
49. Identify the correct statements regarding the nuclei of verticella
 (a) Both macro and micro nuclei are diploid
 (b) Macro nucleus is diploid and micro nucleus is haploid
 (c) The male and female pro-nuclei are haploid
 (d) Both pronuclei are diploid
 (e) Zygote is diploid
 (1) a, b, c (2) b, c, e (3) a, d, e (4) a, c, e
50. Match the following with reference to Pheretima:
Set – I **Set – II**
 a. Spremiducal funnels 1. 200-250

- b. Ring vessels
c. Exo-nephric nephridia
d. Accessory gland
e. Ovary
(1) a-5, b-1, c-4, d-2, e-3
(3) a-1, b-5, c-4, d-2, e-3
2. 17 and 19th segments
3. 12/13th segment
4. 10, 11, 12 and 13th segments
5. 10th and 11th segments
(2) a-5, b-4, c-1, d-2, e-3
(4) a-5, b-1, c-4, d-3, e-2
51. The Sclerite that covers the top of the head and the space between the two compound eyes in Periplaneta is
(1) Clypeus (2) Labrum (3) Vertex (4) Genae
52. The type of mouth parts found in the insect that is known to spread Myiasis is :
(1) Sponging and sucking (2) Piercing and sucking
(3) Biting and Chewing (4) Siphoning
53. The enteronephric nephridia in Pheretima consists of the following parts:
(a) A nephrostome (b) Terminal nephridial duct
(c) Septal excretory canal (d) Supra-intestinal excretory canal
(e) Long thick walled excretory canal
(1) b, e (2) a, c, d, e (3) c, d, e (4) a, c, d
54. Abdominal ganglion in cockroach is not found in this segment (s) :
(1) 2 and 3 (2) 4 (3) 5 (4) 6
55. Match the following :
- | | |
|-----------------------------|-----------------------------|
| Set – I | Set – II |
| a. Olfactory sensillae | 1. Ommatidium |
| b. Peritrophic membrane | 2. Diurnal insects |
| c. Cibarium | 3. Food bolus |
| d. Rhabdome | 4. Hypopharynx |
| e. Apposition image | 5. Maxillary palp |
| (1) a-3, b-4, c-5, d-2, e-1 | (2) a-3, b-5, c-4, d-1, e-2 |
| (3) a-5, b-3, c-1, d-4, e-2 | (4) a-5, b-3, c-4, d-1, e-2 |
56. Match the following :
- | | |
|------------------------|------------------------|
| Set – I | Set – II |
| a. Vant Hoff's rule | 1. Body size |
| b. Bergman's rule | 2. Metabolic rate |
| c. Allen's rule | 3. Development |
| d. Jordan's rule | 4. Organ size |
| (1) a-1, b-2, c-4, d-3 | (2) a-3, b-4, c-2, d-1 |
| (3) a-2, b-1, c-3, d-4 | (4) a-2, b-1, c-4, d-3 |
57. A sanguivorous, ectoparasitic anadromous animal is :
(1) Eel (2) Salmon (3) Slime eel (4) Lamprey
58. Match the following :
- | | |
|-----------------------------|-----------------------------|
| Set - I | Set – II |
| a. Ductus botalli | 1. Oikopleura |
| b. Ductus carotians | 2. Lepidosiren |
| c. Neoteny | 3. Lamprey |
| d. Anadromous | 4. Lacertilia |
| (1) a-5, b-4, c-1, d-3, e-2 | 5. Uraeotyphlus |
| | (2) a-5; b-1, c-4, d-3, e-2 |

(1) a-2, b-1, c-4, d-3

(3) a-1, b-2, c-4, d-3

79. Match the following :

Set -I

a. Scylla tranquibarica

b. Oidium albicans

c. Gracellaria

d. Anacones

e. Hypophthalmichthys molitrix

(1) a-3, b-4, c-2, d-1, e-5

(3) a-3, b-5, c-2, d-4, e-1

(2) a-2, b-1, c-3, d-4

(4) a-4, b-1, c-2, d-3

Set -II

1. Silver carp

2. Agar

3. Green crab

4. Thrush

5. Mediterranean bird

(2) a-4, b-3, c-2, d-5, e-1

(4) a-3, b-4, c-2, d-5, e-1

80. The anaphase promoting complex is activated by :

(1) M cdk cyclin

(2) G₁ cdk cyclin

(3) S cdk cyclin

(4) Transcription factor

ANSWERS

(41) 1 (42) 4 (43) 2 (44) 3 (45) 1

(46) 2 (47) 2 (48) 4 (49) 4 (50) 2

(51) 3 (52) 1 (53) 1 (54) 3 (55) 4

(56) 4 (57) 4 (58) 1 (59) 2 (60) 2

(61) 4 (62) 2 (63) 4 (64) 4 (65) 4

(66) 3 (67) 2 (68) 3 (69) 1 (70) 3

(71) 1 (72) 3 (73) 4 (74) 1 (75) 1

(76) 1 (77) 2 (78) 1 (79) 4 (80) 1