

**HIGHER SECONDARY PUBLIC EXAMINATION – MARCH 2011**  
**ZOOLOGY - KEY**

Max. Marks: 150  
30 X 1 = 30

**PART-1**  
(Answer all questions)

A			B		
Q. NO	Answer choice	Answer	Q. NO	Answer choice	Answer
1	a	70 to 110 mg/dl	1	d	Sickle-cell anaemia
2	c	Pellagra	2	d	Jean Baptiste de Lamarck
3	d	Sarcoplasmic reticulum	3	c	Channa marulius
4	d	Alzheimer's disease	4	a	Tilapia
5	b	Rhodopsin	5	d	Rous sarcoma
6	b	Thyrotoxicosis	6	c	Leghorn
7	b	Medulla oblongata	7	b	Protozoa
8	b	Liver	8	c	Aorta
9	a	Epididymis	9	c	Bee venom
10	d	Ceruminous gland	10	b	Turk's solution
11	c	12 years	11	d	Transposons
12	d	Autoimmune disease	12	d	Group-G
13	b	Mucous membrane	13	c	Sequenator
14	c	Milk fever	14	b	Orchid bees
15	a	China	15	d	Jersey
16	d	Transposons	16	c	12 years
17	d	Group-G	17	d	Autoimmune disease
18	c	Sequenator	18	b	Mucous membrane
19	b	Orchid bees	19	c	Milk fever
20	d	Jersey	20	a	China
21	c	Leghorn	21	b	Thyrotoxicosis
22	b	Protozoa	22	b	Medulla oblongata
23	c	Aorta	23	b	Liver
24	c	Bee venom	24	a	Epididymis
25	b	Turk's solution	25	d	Ceruminous gland
26	d	Sickle-cell anaemia	26	a	70 to 110 mg/dl
27	d	Jean Baptiste de Lamarck	27	c	Pellagra
28	c	Channa marulius	28	d	Sarcoplasmic reticulum
29	a	Tilapia	29	d	Alzheimer's disease
30	d	Rous sarcoma	30	b	Rhodopsin

**PART-II**  
(Answer any 15)

15 x 3 = 45

31	<p><b>Reduction in the intake of protein or protein malnutritions</b></p> <p><b>Symptoms :</b></p> <ul style="list-style-type: none"> <li>i) the child loses weight</li> <li>ii) severe diarrhea</li> <li>iii) the body muscles get wasted.</li> <li>iv) Appear as though the bones are covered by the skin.</li> </ul>	1 mark	3
		2 marks (any 2)	
32	<p><b>It is the inflammation of the appendix, leading to severe abdominal pain.</b></p> <p><b>Symptoms :</b></p> <ul style="list-style-type: none"> <li>i) inflammation causes blockage.</li> <li>ii) sudden pain in the upper abdomen,</li> <li>iii) nausea with or without vomiting.</li> <li>iv) mild fever.</li> </ul>	1 mark	3
		2marks (any 2)	
33	<ul style="list-style-type: none"> <li>i) When the alveoli are stretched at the height of inspiration</li> <li>ii) The receptors send stimuli to the expiratory center of the medulla through the vagus nerve</li> <li>iii) which inhibits further inspiration.</li> </ul>	1mark	3
		1 mark	
		1 mark	
34	<ul style="list-style-type: none"> <li>i) Severe heavy crushing pain may spread up to the neck and in to the arms especially the left arm.</li> <li>ii) Sweating</li> <li>iii) Shortness of breath</li> <li>iv) Nausea and vomiting</li> <li>v) Anxiety sometimes accompanied by fear of dying.</li> </ul>		3
		(Any 3)	
35	<p><b>The left and right hemispheres exchange information through corpus callosum, anterior commissure and hippocampal commissure. The two hemispheres have their own specific functions and the above division of functions or labour between the two hemisphere is called 'lateralization'.</b></p>		3
36	<ul style="list-style-type: none"> <li>i) aging,</li> <li>ii) sunlight exposure,</li> <li>iii) smoking,</li> <li>iv) poor nutrition,</li> <li>v) eye trauma,</li> <li>vi) systematic diseases like diabetes mellitus, infection and injuries</li> <li>vii) certain medications such as steroids.</li> <li>viii) Sometimes German measles in pregnant mothers causes cataract in the child.</li> </ul>		3
		(Any 3)	



43	<p>i) Philosophic Zoologique.  ii) The Origin of species or Origin of species by means of Natural Selection,  iii) Genetics and the Origin of species  iv) Process of organic evolution. (Any 3)</p>	3
44	<p>i) cow pox,  ii) Foot and mouth disease  iii) Rinderpest. (3x1=3)</p>	3
45	<p>i) Royal jelly is secreted by glands of nurse bees of the age of 6-12 days.  ii) It is very nutritious food and is fed to the young larvae and adult queen.  iii) milky white in colour.  iv) It is composed of protein, lipids, carbohydrates, water and ash.  v) a nutritious food for human beings as it increases vigour and vitality. (Any 3)</p>	3
46	<p>i) Cultivation of food plants(Plant origin)  ii) Rearing of larvae (Animal origin) and  iii) Reeling of thread from cocoon (Technical origin).</p>	3
47	<p>i) invaluable tool in the cancer diagnosis process  ii) finding a greater role in the detection, diagnosis and treatment of heart disease, acute stroke and vascular diseases, which can lead to stroke, gangrene of kidney failure.  iii) used to measure bone mineral density for the detection of osteoporosis.  iv) excellent application in trauma cases and other internal bleeding in patients.  v) CT is used extensively for diagnosing problems of the inner ears and sinus.  vi) basis for interventional work like CT guided biopsy and minimally invasive therapy.  Any 3 point 3 x 1 = 3 marks</p>	3
48	<p>Brooding is the care and management of young chickens for four to six weeks immediately after hatching.</p>	3
49	<p>The hypophystation is a process of stimulating the breeding activity of fish through the injection of pituitary extract resulting timely release of eggs and sperms from the ripe gonads.</p>	3
50	<p>Cold water fish such as <i>salmon</i> and <i>trout</i> which are mainly of sport value are cultured in places of high altitude like Kashmir, Himachal Pradesh, Ootacamund and Kodaikanal. The water bodies of the hills are characterized by the low temperature.</p>	3

