

HIGHER SECONDARY PUBLIC EXAMINATION – MARCH 2011
ZOOLOGY - KEY

Max. Marks: 150
30 X 1 = 30

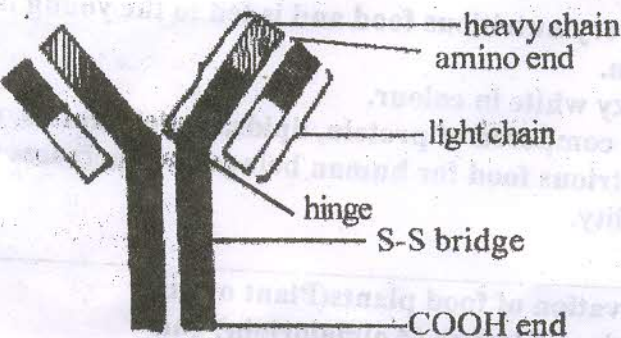
PART-1
(Answer all questions)

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

37	Corpus luteum is derived from the empty graafian follicle after ovulation.	3
38	i) His crowning achievements were Pasteurisation of milk, ii) The development of techniques to reduce the virulence of infectious organism, without eliminating their capacity to produce immunity. iii) In this way he developed vaccines, for the control of "cholera" in chicken. iv) "Anthrax" in sheep v) "Rabies" in man	3
(Any 3)		
39	 Diagram parts (any 2)	2 marks 1 mark
40	Genetically engineered bacteria are called superbugs. Uses: (any one) i) Superbugs can degrade several aromatic hydrocarbons, ii) They are employed in clearing oil spills in the ocean. Thus these are used in pollution abatement. iii) The above superbug can destroy octanes, xylenes camphorsand toluenes.	2 Marks 1 Mark
41	i) Helps to identify the sex of individuals through amniocentesis. ii) Genetic diseases in human beings can be detected by this technique. iii) By characterizing the normal karyotype, the chromosomal abnormalities such as deletion, duplication, translocation, non-disjunctions and the consequent aneuploids could be detected.	3 (3x1=3)
42	Biological diversity means the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are parts.	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

