

SECOND YEAR HIGHER SECONDARY SAY/IMP. EXAMINATION, JUNE 2016.  
(Finalised Scheme of Valuation)

Subject: Biology – Part B Zoology

Code No: 2017 Part B

Qn.No	Sub Qn	Scoring Indicators	Split Score	Total Score
1.		Fertilization	1	1
2.	a	A - Divergent Evolution B - Convergent Evolution	$\frac{1}{2}$ $\frac{1}{2}$	2
	b	Homologous Organs - Fore limbs of mammals / Vertebrates hearts & brains / Thorn & Tendrils of bougainvillea and Cucurbita Analogous Organs - Wings of birds & butterflies / eyes of octopus and mammals / flippers of penguins & dolphins / sweet potatoes & Potatoes	$\frac{1}{2}$	
3.		c) Trichoderma	1	1
4.	a	X - antigen binding site Y - heavy chain	$\frac{1}{2}$ $\frac{1}{2}$	2
	b	IgA, IgM, IgE, IgG (any two)	$\frac{1}{2} + \frac{1}{2}$	
5.		a) Baculo virus	1	1
6.		<u>A</u> Ovulation Luteal phase	<u>B</u> LH Progesterone	

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		Acrosome Inner Cell mass	Sperm Blastocyst	$\frac{1}{2} \times 4$ 2
7.	a) b)	Homo habilis Neanderthal man	1 1	2
8.	a) b) c)	Start Codon - AUG Stop Codon - UAG 4 UTR (Untranslated regions)	$\frac{1}{2}$ $\frac{1}{2}$ 1 1	3
9.		Gonorrhoea - It is the only sexually transmitted disease given / STD.	$\frac{1}{2} + \frac{1}{2}$	1
10.	a) b)	A - Monosomy of Sex chromosome / X-chromosome B - Klinefelter's Syndrome Failure of segregation of chromatids during cell division cycle results in the gain or loss of chromosome(s) called aneuploidy.	1 1 1	3
11.	a)	(i) Lactose / allolactose (ii) In the presence of an inducer	1	



Qn.No	Sub Qns	Scoring Indicators	Split Score	Total Score
		<p>(lactose / allolactose), the repressor is inactivated by interaction with the inducer. This allows RNA-polymerase access to the promoter, and transcription proceeds /</p> <p>figure given in the text book / any correct explanation regarding Lac operon in the presence of inducer</p>	2	3
	b)	<p style="text-align: center;">OR</p> <p>Splicing - introns are removed and exons are joined in a defined order</p> <p>Capping - methyl guanosine triphosphate is added to the 5' end of hnRNA</p> <p>Tailing - adenylate residues (200-300) are added at 3' end in a template independent manner</p>	<p><math>\frac{1}{2} + \frac{1}{2}</math></p> <p><math>\frac{1}{2} + \frac{1}{2}</math></p> <p><math>\frac{1}{2} + \frac{1}{2}</math></p>	3
12	a)	pedigree analysis / Autosomal dominant trait / Myotonic dystrophy	1	2
	b)	Affected individuals (male & female) / individuals with genetic disorders	1	
13	1.	Gamete intra fallopian transfer / GIFT	1	2
	2.	Artificial insemination / AI / Intra uterine Insemination / IUI	1	

Qn.No	Sub Qns	Scoring Indicators	Split Score	Total Score
14		a) Pneumonia b) Rhinovirus c) Malaria d) Inflammation of the lymphatic vessels of the lower limbs / genital organs / gross deformity	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	2
15.	a)	Insitu conservation - explanation with example  Exsitu conservation - explanation with example (Only Insitu conservation with explanation carries 3 score)	$\frac{1}{2}$  $\frac{1}{2}$	3
	b)	OR Habitat loss and fragmentation - explanation with example Over exploitation - explanation with example Alien species invasions - explanation with example Co-extinctions - explanation with example (any two causes carries 3 score)	$\frac{1}{2} + \frac{1}{2}$	3