

**FIRST YEAR HIGHER SECONDARY EXAMINATION MARCH 2017**

**FINALIZED SCHEME FOR VALUATION**

**Subject :BIOLOGY- Part A. BOTANY Code No: 617 A**

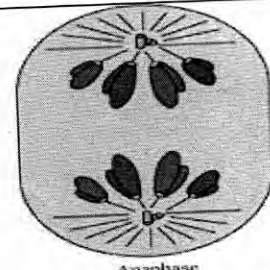
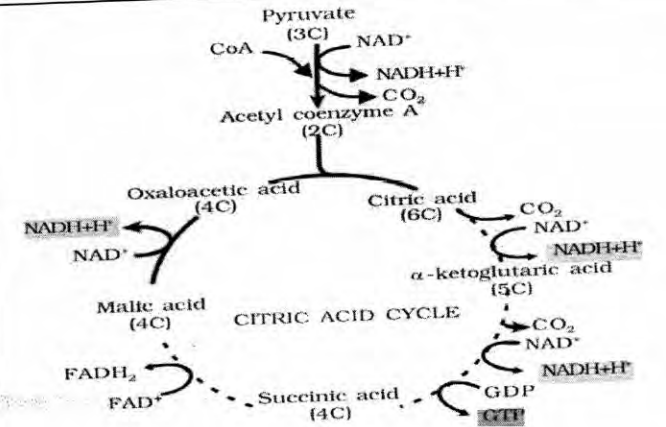
**Max.Score:30**

Qn.No	SCORING INDICATORS	Split Score	Total Score
1	<b>b)F.Skoog</b>	1	1
2	<b>b) i and iv</b>	1	1
3	<b>Help in CO<sub>2</sub> fixation by photosynthesis,increase level of oxygen ,Primary producers on ocean,used as food, hydrocolloids(water holding substances) are obtained, Algin and carrageen are used as commercially, agar is obtained from Gelidium and Gracillaria,agar used to grow microbes, preparation of ice -creams and jellies , Chlorella and Spirulina used as protein enriched food supplements ,food supplements for space travellers etc. (any four correct responses like this)</b>	½x4	2
4	<b>Nitrogensae enzyme/Mo-Fe protein leg-haemoglobin</b>	1 1	2
5	<b>In C<sub>3</sub> plants O<sub>2</sub> binds to RuBisCO. The RuBP instead of being converted to 2 molecules of PGA, binds with O<sub>2</sub> to form one molecule of phosphoglycerate and phosphoglycolate in a pathway called photorespiration./Conditions for photorespiration-Dual nature of RuBisCO,increased O<sub>2</sub> concentration, moderate temperature. In the photorespiratory pathway -neither synthesis of sugars nor of ATP.a wastefull process( ½ score) Release CO<sub>2</sub> with the utilization of ATP. No synthesis of ATP or NADPH (any two related responses of photorespiration give full score 2) OR equation (full score)</b>	1 1	2

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12	 <p style="text-align: center;">Anaphase</p> <p>Centromeres split and chromatids separate.          Chromatids move to opposite poles /the centromere of each chromosome is towards the pole/arms towards the equator/help in maintaining chromosome number of mother cell and daughter cells (any two correct responses)</p>	1	3
13	<p>a <b>Cytoplasm(Cytosol)</b></p> <p>b A. Glucose-6-phosphate          B. Fructose -6- phosphate          C. Fructose-1,6-bis phosphate          D. 1,3 bisphosphoglyceric acid/Triose bisphosphate          E. 2-phosphoglycerate/2-phosphoglyceric acid          F. Phosphoenol pyruvate/Phospho enolpyruvic acid</p> <p style="text-align: center;"><b>OR</b></p>	1 6x ½	4
13	a <b>Hans Krebs</b>	1	
	<p>b</p>  <p>(Any six entry as the given diagram or the names of six compounds give full score 3)</p>	½ x6	4
	<b>TOTAL SCORE</b>	30	30

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FIRST YEAR HIGHER SECONDARY EXAMINATION MARCH 2017

SUBJECT : ZOOLOGY

CODE. NO: 617 B

Qn No	Sub Qns	Answer Key/Value Points	Score	Total												
1.		c) Kingdom - Phylum - Class - Order - Family - Genus - Species	1	1												
2.		b) Tracheal system	1	1												
3.		A - Specialised connective tissue B - Adipose tissue C - Irregular D - Cartilage.	$\frac{1}{2} \times 4$	2												
4.		<table border="1"> <thead> <tr> <th>Phylum/Class</th> <th>Common eg.</th> <th>Unique features</th> </tr> </thead> <tbody> <tr> <td>Pisces</td> <td>Scoliodon</td> <td>2 chambered heart</td> </tr> <tr> <td>Mammals</td> <td>Felis</td> <td>Presence of hairs</td> </tr> <tr> <td>Arthropoda</td> <td>Aedes</td> <td>Open circulatory system</td> </tr> </tbody> </table>	Phylum/Class	Common eg.	Unique features	Pisces	Scoliodon	2 chambered heart	Mammals	Felis	Presence of hairs	Arthropoda	Aedes	Open circulatory system	$\frac{1}{2} \times 6$	3
	Phylum/Class	Common eg.	Unique features													
Pisces	Scoliodon	2 chambered heart														
Mammals	Felis	Presence of hairs														
Arthropoda	Aedes	Open circulatory system														
	<p style="text-align: center;">OR</p> <p>a - Reptilia - any one example b - Ctenophora - " " c - Hemichordata - " "</p>	$\frac{1}{2} \times 6$	3													
5		Aschelminthes / Nematelminthes / Round worms	1	1												



Qn No	Sub Qns	Answer Key/Value Points	Score	Total
10		Antibody - Sensory receptors	1	1
11		A - Meromyosin B - Light Meromyosin / LMM	1x2	2
12	a) ii) Corpus callosum b) A - Axon / Axonite / pre synaptic - Neuron B - Synaptic vesicle C - Synaptic cleft / Synaptic Gap. D - Neurotransmitters / example	1  $\frac{1}{2} \times 4$	3	
13	A - ANF (Atrial natriuretic factor) B - Hypoglycemic hormone / enhances cellular glucose uptake / decreases blood sugar level / Glycogenesis C - Kidney / JGA D - Thyroxine	$\frac{1}{2} \times 4$	2	
14	a) iii) P-wave represent auricular depolarization b) A - Aorta, B - Venacava / Superior Venacava / Pre caval vein C - Pulmonary Artery	1		

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
		D - Chordae tendinae / Tricuspid valve / Right auriculo ventricular aperture	$\frac{1}{2} \times 4$	3
15		Prawn - Antennal gland Earthworm - Nephridia	$\frac{1}{2} \times 4$	2
		