

**KENDRIYA VIDYALAYA SANGATHAN LUCKNOW REGION****CLASS XI : BIOLOGY****CUMULATIVE EXAMINATION 2023-24****MARKING SCHEME**

Maximum Marks: 70

Time: 3 Hours

<b>SECTION A</b>		
1.	d. Cnidaria	1
2.	b. Glycosidic bond	1
3.	a. Singer and Nicholson	1
4.	b. Metaphase – I	1
5.	d. Pteropsida	1
6.	c. <i>Mangifera indica</i>	1
7.	b. M W Beijerinck	1
8.	c. Phaeophyceae	1
9.	b. Aestivation	1
10.	b. Suberin	1
11.	c. International Code for Botanical Nomenclature	1
12.	b. Holoenzyme = Apoenzyme + Coenzyme	1
13.	A. Both A and R are true and R is the correct explanation of A.	1
14.	A. Both A and R are true and R is the correct explanation of A.	
15.	A. Both A and R are true and R is the correct explanation of A.	
16.	D. A is false but R is true.	
<b>SECTION B</b>		
17.	a. Any correct example of Porifera	½
	b. Arthropoda	½
	c. Ctenophora	½
	d. Sucking and circular mouth without jaws.	½
18.	Correct reason	1
	One correct example	1
19.	a. Cellulose	½
	b. Starch	½
	c. Rhodophyceae	½
	d. Cellulose, pectin and polysulphate esters	½
20.	a. Bulliform cells	1
	b. Radial	1
21.	Correct explanation with correct diagram	1+1

<b>SECTION C</b>		
22.	Correct diagram of mitochondria with its contribution in cell OR Correct labeled diagram of nucleus	1½ + 1½ 3
23.	a. Correct definition of crossing over. Recombinase b. Three correct significance of meiosis	1½ + 1½
24.	a. Cell wall structure. Thermoacidophiles, Halophiles and Methanogens b. Naked RNA without protein coat.	½ x 4 1
25.	Correct names with correct significance of accessory pigments	3
26.	Correct and well diagram of digestive system of frog.	3
27.	a. In dicot stem vascular bundles are arranged in ring, in monocot stem they are found scattered in ground tissue b. In dicot stem hypodermis is collenchymatous, in monocot stem it sclerenchymatous. c. In dicot stem vascular bundles are conjoint and open, in monocot stem they are conjoint and closed	1 1 1
28.	a. Coralloid roots in <i>Cycas</i> for nitrogen fixation. Mycorrhiza in <i>Pinus</i> for absorption. b. Correct definition with one example	1 1 ½ + ½
<b>SECTION D</b>		
29.	i. b. Ribozyme ii. d. All the above. iii. b. Till all enzyme molecules are saturated iv. d. Holoenzyme OR d. Activation energy	1 1 1 1
30.	i. d. 30 ii. RuBisCO = Ribulose 1,5 bisphosphate Carboxylase Oxygenase OR PEPcase = Phosphoenol pyruvate Carboxylase iii. a. Oxaloacetate iv. Correct explanation of Kranz anatomy	1 1 1 1
<b>SECTION E</b>		
31.	Correct diagram of chromosome with labelling. Three types of chromosomes on the basis of position of centromere. OR i. Three types of leucoplasts with their functions ii. 70S = 50S + 30S, 80S = 60S + 40s. 70S ribosomes in chloroplast	2 3 3 2

32.	<p>i. Correct diagram and explanation of marginal, parietal and basal placentation.</p> <p>ii. Two correct differences between racemose and cymose inflorescence.</p> <p style="text-align: center;">OR</p> <p>Correct description three types of flowers based on the position of calyx, corolla, androecium in respect of ovary on thalamus with one example of each.</p>	<p>1x3</p> <p>1x2</p> <p>5</p>
33.	<p>i. 03 correct differences between Chonrichythes and Osteichthytes.</p> <p>ii. Atleast two correct flight adaptation in birds.</p> <p style="text-align: center;">OR</p> <p>i. Atleast 03 correct salient features of Class Mammalia.</p> <p>ii. The excretory organs in Tapeworm is flame cells and Earthworm is nephridia</p>	<p>1x3</p> <p>2</p> <p>1x3</p> <p>1x2</p>