

FIRST YEAR HIGHER SECONDARY PRE MODEL EXAMINATION

PART III

BIOLOGY

PART- A BOTANY

KEY

FYCBTA22/3

Maximum score 30

Q.No	PART I	Split score	Full score						
1.	(d) Turnip	1	1						
2.	Pulvinus	1	1						
3.	Perianth	1	1						
4.	(b) Liliaceae	1	1						
5.	diadelphous	1	1						
6.	(c) K	1	1						
7.	A fruit is formed without fertilisation of the ovary	1	1						
8.	Stamens attached to the petals	1	1						
9.	It helps to get oxygen for respiration	1	1						
10.	It can be divided into two similar halves only in one particular vertical plane	1	1						
PART II									
11.	(a) Arrangement of flowers on the floral axis. (b) Racemose and Cymose	1 1	2						
12.	Pinnately compound leaves—number of leaf lets are present on a common axis called rachis. E.g. Neem Palmately compound leaves—leaflets are attached to a common point that is at the tip of petiole. E.g.Silk cotton	1 1	2						
13.	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">A Dicot plant</td> <td style="width:50%; text-align: center;">B Monocot plant</td> </tr> <tr> <td>Tap root system</td> <td>Fibrous root system</td> </tr> <tr> <td>Pentamerous flower</td> <td>Trimerous flower</td> </tr> </table>	A Dicot plant	B Monocot plant	Tap root system	Fibrous root system	Pentamerous flower	Trimerous flower	½ ½ ½ ½	2
A Dicot plant	B Monocot plant								
Tap root system	Fibrous root system								
Pentamerous flower	Trimerous flower								
14.	(a) The arrangement of veins and the veinlets in the lamina of leaf is termed as venation. (b) Reticulate and Parallel.	1 ½ ½	2						
15.	A. Root cap B. Reaigion of elongation C. Root hairs D. Region of maturation	½ ½ ½ ½	2						
16.	Pulses (gram, arhar, sem, moong, soyabean) Edible oil (soyabean, groundnut) Dye (Indigofera); Fibres (sunhemp) Fodder (Sesbania, Trifolium), Ornamentals (lupin, sweet pea); medicine (muliathi). [Any 2]	1 1	2						
17.	(a) Fabaceae (b) 1. Standered petal 2.wing petals 3.keel petal	½ 1½	2						
18.	(a) Prop roots for support (b) Stilt roots for support	1 1	2						

19.	Phyllotaxy is the pattern of arrangement of leaves on the stem or branch. (b) Alternate, opposite and whorled.	$\frac{1}{2}$ $\frac{1}{2} \times 3$	2
20	a. Stem/ axillary bud modification b. Leaf modification	1 1	2
PART III			
21.	(a) A. Epicarp B. Mesocarp (b) It develops from monocarpellary superior ovaries and is one seeded. (c) Fruit wall is called pericarp.	$\frac{1}{2}$ $\frac{1}{2}$ 1 1	3
22.	a) Solanaceae b) $\oplus \text{♀} \overset{\nearrow}{K}_{(5)} \overset{\curvearrowright}{C}_{(5)} \overset{\curvearrowright}{A}_5 \underline{\text{G}}_{(2)}$	1 2	3
23.	(a) The arrangement of ovules within the ovary (b) (a) Axile placentation (b) Basal placentation (c) Parietal placentation (d) Free central placentation	1 $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	3
24.	(a) A. Hypogynous B. Perigynous C. Epigynous (b) A. Hypogynous flower- ovary superior B. Perigynous- ovary half inferior/ half superior C. Epigynous –ovary inferior	1 $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	3
25	(a) A. aleurone layer B. endosperm C. scutellum D. coleorhiza (b) scutellum	$\frac{1}{2} \times 4$ 1	3