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SYBSC Botany-CBSGS-SEM-III
SYBSc Botany Paper-II-Revised
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Code- 65215

Q.IA	Choose the correct answer	10
i	Phelloderm	
ii	radial	
iii	Collenchyma	
iv	Respiration	
v	ATP	
vi	Garner and Allard	
vii	night break	
viii	cryptophytes	
ix	Nutrients	
x	frequency	
Q.IB	Answer in one or two sentences	10
i	Sclerenchyma fibers and collenchyma .	
ii	Lenticels are restricted areas of relatively loosely arranged ,suberised or non suberised cells in the periderm	
iii	generating two molecules of 3-phosphoglyceric acid (3-PGA),	
iv	Denitrifying bacteria convert nitrate (NO ₃) found in the soil into nitrogen gas (N ₂). This process is called denitrification	
v	permeability of soil is the property of the soil to transmit water and air	
Q.II	Attempt any two	20
i	Heartwood and sapwood-05 Growth rings-05	
ii	sclerenchyma as mechanical tissue Defination-01 Digram-02 Description-07(Fibers,Sclereids)	
iii	I-Girders in leaf Shearing stresses	
iv	Conjoint , Radial and Concentric vascular bundle A) Radial vascular bundle In these types of vascular bundles, xylem and phloem tissues occur in separate groups on alternate radial positions. This is seen in roots. (B) Conjoint vascular bundles The xylem and phloem tissues are present on the same radius and just opposed to each other in conjoint vascular bundles. It is a common occurrence in dicot stems. Depending on the number and position of phloem group, conjoint vascular bundles are of	

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	two types: collateral type and bi-collateral type . Collateral vascular bundles are very common type and seen in stems of dicotyledons except the members of Cucurbitaceae and some members of Convolvulaceae. Cambium may be present or absent in between xylem and phloem patches making the vascular bundle open or closed respectively	
Q.III	Attempt any two	20
i	effect of quality of light on night break in Short Day plants Pr-Pfr interconversion	
ii	Glycolysis is the process in which one glucose molecule is broken down to form two molecules of pyruvic acid -02 Glycolysis process (steps)-08	
iii	Defination of terminal oxidation-03 process with reference to respiration in plants.-08	
iv	Defination Phytochrome -02 the mode of phytochrome transformation and -04 phytochrome action-04	
Q.IV	Attempt any three	20
i	Defination of biogeochemical Cycles -03 carbon cycle-07	
ii	Defination pedogenesis -03 pedogenesis in detail-07	
iii	Biotic factors 05 Abiotic factors of the ecosystem05	
iv	Stratification- horizontal and vertical, Temporal	
Q.V	Write short notes on any four	20
i	Xylem as mechanical tissue Complex tissue forming a part of V.B Tracheids , vessels,Xylem sclerenchyma and xylem parenchyma.	
ii	The flat organs like the leaves are often subjected to violent shearing stresses due to movement of surrounding air or water. The wind currents work at right angles to the surface of the leaves and cause considerable laceration. To stand against this stress the I-girders present for securing inflexibility are firmly held together by a large number of cross-ties in form of veins which often form a network	
iii	Differences between Dark respiration & Photorespiration	
iv	Physico-chemical property of phytochrome	

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	Photoreceptor for red light response Mol wt.60,000 Interconvertable formPr and Pfr	
v	Quadrat Defination-02 Method-03	
vi	Biological weathering- 05	