SYBSC Botany-CBSGS-SEM-III
SYBSc Botany Paper-II
April 2019
Code- 65213

Q.IA	**Choose the correct answer**	**10**
i	flanges	
ii	bastfibres	
iii	phellogen	
iv	Respiration	
v	Photoperiodism	
vi	treatment with high temperature	
vii	Glycolate	
viii	Nutrients	
ix	Community ecology	
x	Sedimentation	
Q.IB	**Answer in one or two sentences**	**10**
i	Heartwood is the central cylinder found in tree trunks. Heartwood forms as the tree ages and the inner xylem cells lose the capacity transmit water. Heartwood tends to be darker in clour .Imparts mechanical strength	
ii	Open collateral and closed collateral	
iii	site of vernalization-germinating seed ,shoot apical meristemor vegetative parts	
iv	the factors that influence the soil pH. Temperature and rainfallcontrol leaching intensity and soil mineral weathering	
v	water holding capacity is the total amount of water a soil can hold at field capacity	
Q.II	**Attempt any two**	**20**
i	Defination of peridem, Diagram , Formation- 10	
ii	sclerenchyma as mechanical tissue Defination-01 Digram-02 Description-07(Fibers,Sclereids).	
iii	the secondary growth in dicot stem-06 difference from that of the root -04	
iv	Defination of Growth ring-01 Diagram02 the formation of growth rings in woody perennial plants-07	

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Q.III	**Attempt any two**	**20**
i	components of electron transport systemWhen electrons flow down the energy gradient from NADH to O2, the four protein complexes that catalyze the redox reaction are: Complex I = NADH-Q reductase complex. Complex III= Cytochrome c reductase complex. Cyt C = Cytochrome c. Complex IV = Cytochrome c oxidase complex	
ii	Defination of vernalization-02 ***Importance of Vernalization:*** (i) Vernalization can help in shortening the juvenile or vegetative period of plant and bring about early flowering. It is not only applicable to temperate plants but also to some tropical plants, e.g., Wheat, Rice, Millets, Cotton,(ii) It increases yield, resistance to cold and diseases, and(iii) Kernel wrinkles of Triticale can be removed by vernalization.	
iii	defination of photorespiration-02 process of photorespiration in C3 plants-08	
iv	aerobic (Presence of oxygen,takes place in mitochondria and cytoplasm,common in higher organism) anaerobic respiration (absence of oxygen ,lower organism ,takes place in cytoplasm).	
Q.IV	**Attempt any three**	**20**
i	physiognomy, stratification, plant composition with reference to plant community	
ii	Nitrogen cycle;-Nitrogen fixation ,assimilation ,ammonification,nitrification,denitrification,sedimentation	
iii	Defination soil profile-03 components of soil profile 07	
iv	Any two Quantitative Characters- 10	

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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	Lenticels are restricted areas of relatively loosely arranged ,suberised or non suberised cells in the periderm	
iii	Useful for plant breeders Useful in inducing or retarding Annuls can be grown twice or thrice year .	
iv	Kerb cycle diagram	
v	Soil texture - **Texture** indicates the relative content of particles of various sizes, such as sand, silt and clay in the **soil**. **Texture** influences the ease with which **soil** can be worked, the amount of water and air it holds, and the rate at which water can enter and move through **soil**.	
vi	Biological spectrum The relative numbers of plant species per biological type (as aerophytes, hygrophytes, phanerophytes, etc.) occurring in a particular ecosystem, each expressed as a percentage of the total..	