

# C.U.SHAH UNIVERSITY

## Summer Examination-2016

**Subject Name : Plant Physiology**

**Subject Code : 4SC02PPH1/4LS02BOT1/4LS02BOT2 Branch: B.Sc(Microbiology)**

**Semester : 2      Date : 11/05/2016      Time : 10:30 To 1:30      Marks : 70**

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

<b>Q-1</b>	<b>Attempt the following questions:</b>	<b>(14)</b>
	a) Define plant physiology.	1
	b) Define DPD.	1
	c) Define OP.	1
	d) Define TP.	1
	e) Define Imbibition.	1
	f) What is the difference between osmosis and diffusion?	1
	g) Define plant ash.	1
	h) What is isotonic solution?	1
	i) Enlist various types of membranes.	1
	j) What is plasmolysis?	1
	k) Define Guttation.	1
	l) What is scranz anatomy?	1
	m) What is scotoactive stomata?	1
	n) Calculate OP of 10 molar sucrose solution	1

**Attempt any four questions from Q-2 to Q-8**

<b>Q-2</b>	<b>Attempt all questions</b>	<b>(14)</b>
	a) Enlist and explain various physical methods of water absorption(any two)	<b>7</b>
	b) Enlist and explain physical force theories of Asent of sap (any two)	<b>14</b>
<b>Q-3</b>	<b>Attempt all questions</b>	<b>(14)</b>
	a) Explain mechanism of opening and closing of stomata by starch-sugar inter conversion theory.	<b>7</b>
	b) Define and explain photophosphorylation by non-cyclic method	<b>7</b>
<b>Q-4</b>	<b>Attempt all questions</b>	<b>(14)</b>
	a) Explain mechanism of Translocation of solutes in detail.	<b>14</b>



<b>Q-5</b>	<b>Attempt all questions</b>	<b>(14)</b>
a)	Explain factors affecting photosynthesis in detail	7
b)	Explain Active ion-uptake of mineral by plants.	7
<b>Q-6</b>	<b>Attempt all questions</b>	<b>(14)</b>
a)	Explain factors affecting absorption of water by plants	7
b)	Write comparison of PSI and PSII	7
<b>Q-7</b>	<b>Attempt all questions</b>	<b>(14)</b>
a)	Explain factors affecting Transpiration in detail	7
b)	Write comparison of C3 and C4 plants	7
<b>Q-8</b>	<b>Attempt all questions</b>	<b>(14)</b>
a)	Explain Active absorption of water by plants in detail	7
b)	Explain Passive absorption of water by plants in detail	7

