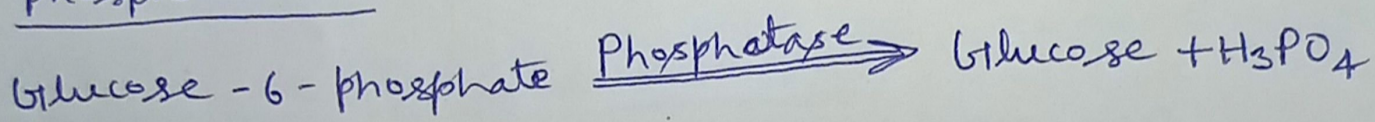


Dr. Rachana Shalini
 Department of Botany
 class : Deg. II (Subs.)
 Topic : Photosynthesis (Contd.)
 Lecture No. - 134
 Date : 28/10/2020

• Photosynthesis (Continued) :

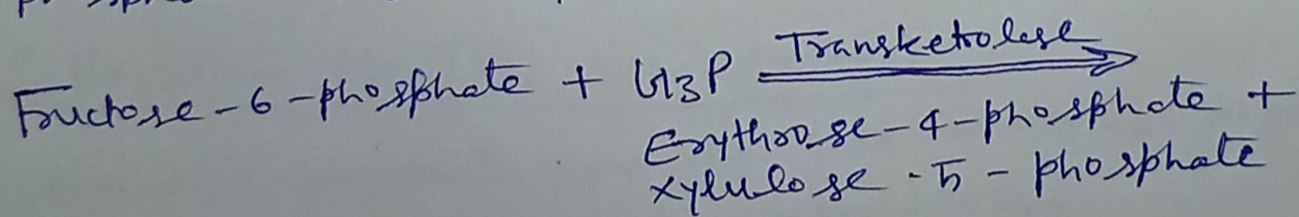
Glucose-6-phosphate loses its H_3PO_4 from the 6th carbon atom in presence of enzyme phosphatase.



• (C). Regeneration of RUBP :

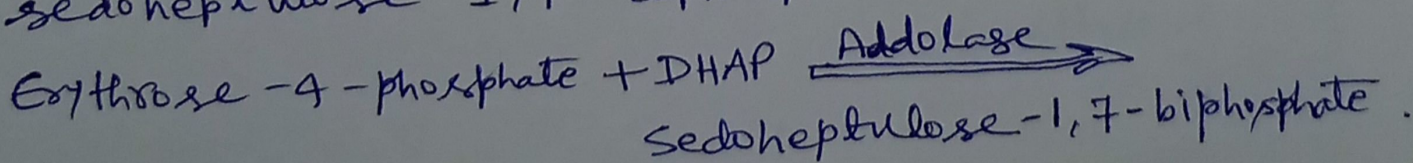
• Reaction No. (7) :

Fructose-6-phosphate combines with $6P$ in presence of enzyme transketolase to form Erythrose-4-phosphate and xylulose-5-phosphate.



• Reaction No. (8) :

Erythrose-4-phosphate combines with DHAP in presence of enzyme aldolase to form sedoheptulose 1,7-bisphosphate.

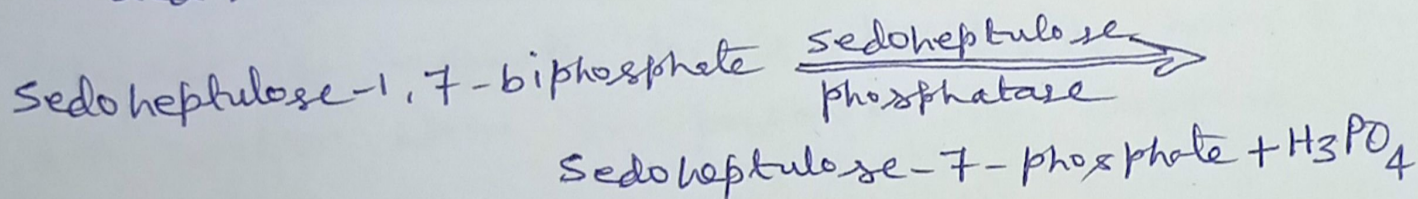


(12)

• Reaction No. (9):

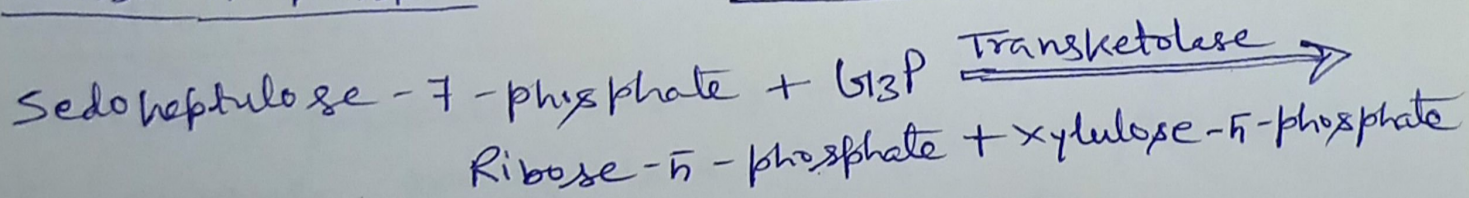
Sedoheptulose-1,7-bisphosphate loses its H_3PO_4 of first C-atom in presence of enzyme sedoheptulose phosphatase to form sedoheptulose-7-phosphate.

In this reaction, one molecule of water is needed.



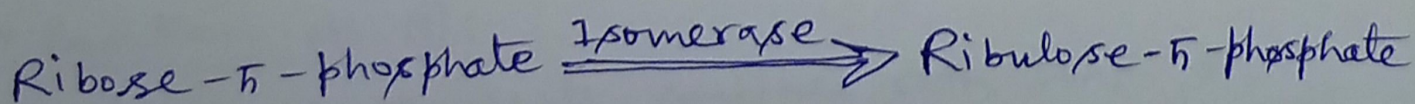
• Reaction No. (10): Combination

Sedoheptulose-7-phosphate combines with G13P in presence of enzyme transketolase to form ribose-5-phosphate and xylulose-5-phosphate.



• Reaction No. (11): Isomerisation

Ribose-5-phosphate converts into ribulose-5-phosphate in presence of enzyme isomerase.



(continued --)