

February 26th MCM #8

<https://goo.gl/forms/1bYkBpiM1SwAM2nh1>

February 27th TT #8

1.6.U1 Outline the differences between the behavior of the chromosomes in mitosis and meiosis. [5]

- A. Two divisions in meiosis, only one in mitosis;
- B. Meiosis results in haploid cells, mitosis in diploid cells;
- C. Crossing over only occurs in meiosis;
- D. No S phase precedes meiosis II;
- E. Chromosome behavior in meiosis I and mitosis is different;
- F. Chromosome behavior in meiosis II and mitosis is similar;
- G. Chiasmata only form during meiosis;
- H. Homologous chromosomes move to the equator in pairs only in meiosis;

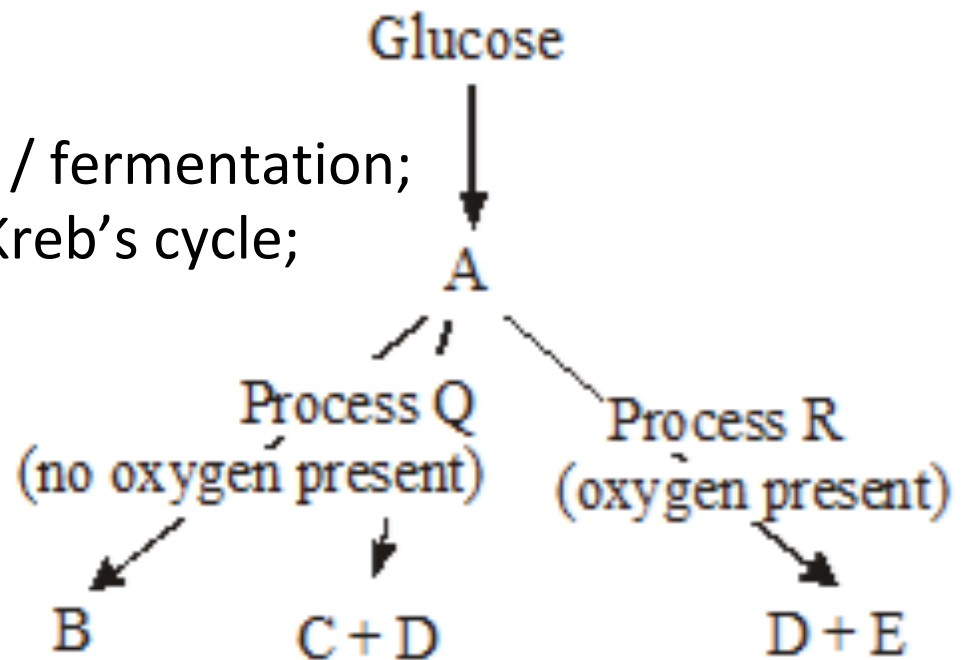
Do not accept number of cells produced - it is a result not a behavior.

February 28th WW #8

2.8.U1-4 The shows possible pathways for the breakdown of glucose in various cells.

1. State the names of processes Q and R. [2]
2. Deduced the names of substances A and D. [2]
3. State the organelle in which process R takes place. [1]

1. Q: anaerobic respiration / fermentation;
R: aerobic respiration / Krebs's cycle;
2. A: pyruvate;
D: carbon dioxide;
3. mitochondrion;



March 1st TTh #8

2.9.S2 Explain two ways in which the rate of photosynthesis can be measured. [4]

A. Production of oxygen;

- (Because) oxygen is a by product of the reaction;
- Count bubbles of oxygen;
- Measure the volume of oxygen;
- Use of oxygen probe find oxygen concentration;

B. Measure carbon dioxide uptake;

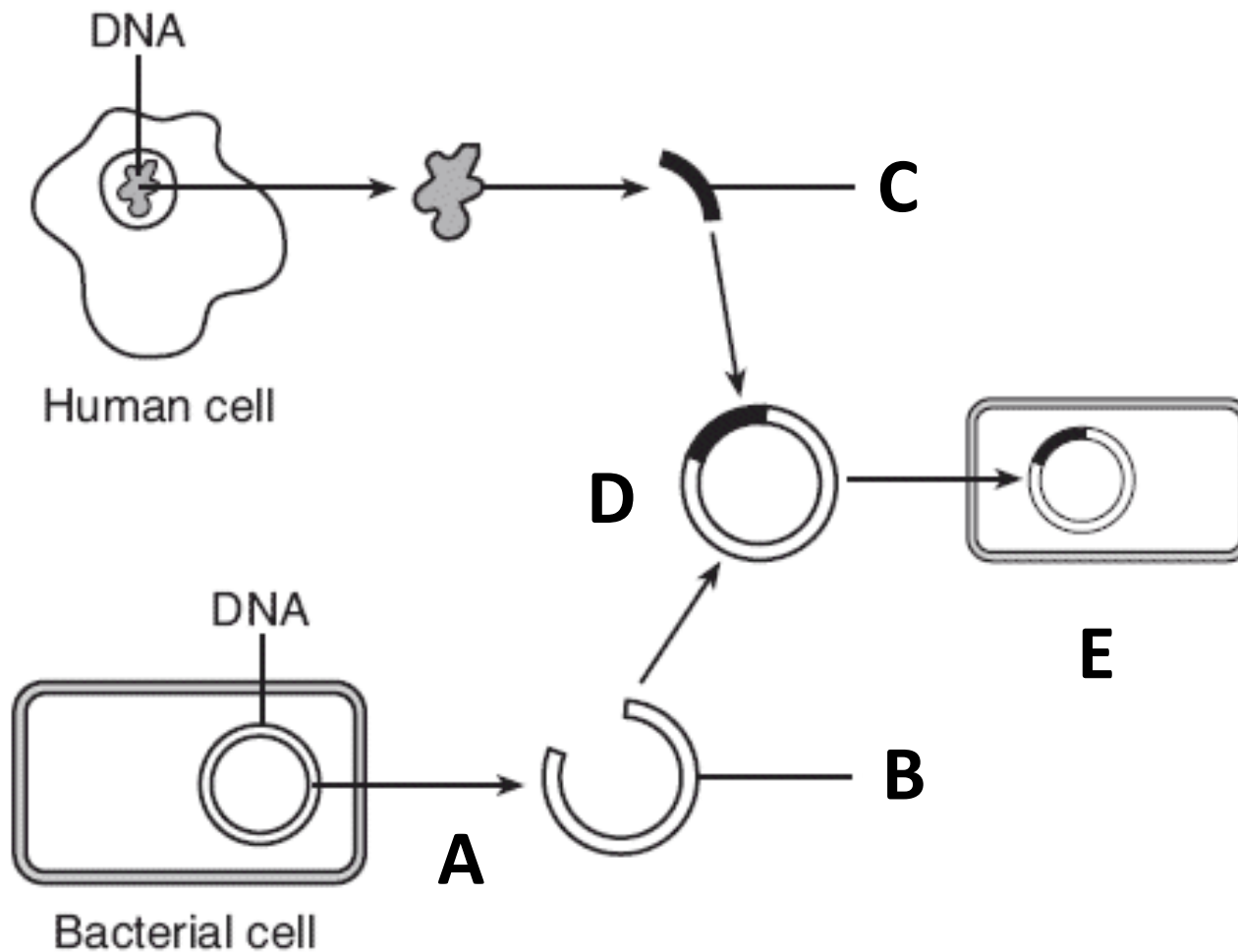
- (Because) carbon dioxide is a raw material of the reaction;
- Measure colour change of ph indicator / other method;
- Use of carbon dioxide probe to find carbon dioxide concentration;

C. Measure increase in biomass;

- (Because products) used in production of cell walls and new tissue;
- Harvest replicate samples at time intervals for biomass determination;

March 2nd FF #8

3.5.A2 What process is occurring at each location in the diagram depicting genetic engineering? [5]



- A. Plasmid removed from bacteria/prokaryotic cell
- B. Plasmid has been cut with restriction enzyme
- C. Gene of interest is isolated from donor cell
- D. Gene of interest is combined/ligated with plasmid
- E. Recombinant plasmid inserted into host cell

