

Cell Biology Answer Sheet

Team Name: ____KEY_____Team Number: _____

Competitor Names:_____

(___/22pt) **Station 1:**

(___/01pt) 01. ___b___

(___/01pt) 02. ___d___

(___/01pt) 03. ___a___

(___/01pt) 04. ___e___

(___/01pt) 05. ___c___

(___/02pt) 06. ___primary_____

(___/02pt) 07. ___secondary_____

(___/02pt) 08. ___tertiary and quaternary (1pt ea)___

(___/06pt) 09. AUGGCAAAGAGCUCGAAGCUAGGAAUUAG_(0.2 ea)

(___/05pt) 10. ___MAKELEARN(STOP)__(0.5 ea)___

(___/12pt) **Station 2:**

(___/02pt) 01. carbonic acid/bicarbonate OR $\text{HCO}_3/\text{H}_2\text{CO}_3$

(___/02pt) 02. __7.35-7.45_____

(___/02pt) 03. __selective(ly) permeable/permeability

(___/02pt) 04. ___hypotonic_____

(___/02pt) 05. ___hypertonic_____

(___/02pt) 06. ___isotonic_____

(___/20pt) **Station 3:**

(___/02pt) 01. ___protonated_____

(___/02pt) 02. ___activity high at low pH_____

(___/04pt) 03. __lock and key, induced fit (2pt ea)_____

(___/02pt) 04. ___competitive_____

(___/02pt) 05. ___increase

(___/02pt) 06. ___stays same_____

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(___/02pt) 07. __noncompetitive (NOT uncompetitive)

(___/02pt) 08. ___stays same_____

(___/02pt) 09. ___decrease_____

(___/24pt) Station 4:

(___/06pt) 01. __isocitrate dehydrogenase, alpha ketoglutarate dehydrogenase, malate dehydrogenase

(___/06pt) 02. __D-isocitrate to alpha ketoglutarate, alpha ketoglutarate to succinyl coA, malate to oxaloacetate (2pt ea)_____

(___/02pt) 03. __mitochondria/mitochondrial matrix_

(___/02pt) 04. __fatty acids_____

(___/02pt) 05. ___acetyl coA_____

(___/01pt) 06. ___a___

(___/01pt) 07. ___c___

(___/01pt) 08. ___c___

(___/01pt) 09. ___a___

(___/01pt) 10. ___d___

(___/01pt) 11. ___c___

(___/14pt) Station 5:

(___/01pt) 01. ___e___

(___/01pt) 02. ___a___

(___/01pt) 03. ___c___

(___/01pt) 04. ___b___

(___/01pt) 05. ___h___

(___/01pt) 06. ___j___

(___/01pt) 07. ___d___

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(___/01pt) 08. ___f___

(___/01pt) 09. ___g___

(___/01pt) 10. ___i___

(___/04pt) 11. ___membrane bound organelles, DNA contained in membrane(2pt ea)_____

(___/19pt) Station 6:

(___/01pt) 01. ___a___

(___/01pt) 02. ___e___

(___/01pt) 03. ___c___

(___/01pt) 04. ___d___

(___/01pt) 05. ___f___

(___/01pt) 06. ___b___

(___/01pt) 07. ___b___

(___/01pt) 08. ___a___

(___/01pt) 09. ___a___

(___/02pt) 10. ___turgor pressure_____

(___/02pt) 11. ___make it stiff_____

(___/03pt) 12. _____primary, secondary, middle lamella (1pt ea)_____

(___/03pt) 13. gram positive and gram negative. Gram staining (1pt ea)

(___/26pt) Station 7:

(___/04pt) 01. A. ___inner monolayer/intracellular side_
B. ___outer monolayer/extracellular side_

(___/04pt) 02. A. ___outer monolayer/extracellular side_
B. ___inner monolayer/intracellular side__

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Team Name: _____KEY_____ Team Number: _____

(___/04pt) 03. A. ___unsaturated___

B. ___saturated_____

(___/02pt) 04. ___phosphatidylcholine_____

(___/04pt) 05. ___cholesterol and sphingolipids (2pt
ea)_____

(___/02pt) 06. _____caveolin_____

(___/02pt) 07. ___liposome_____

(___/02pt) 08. _____micelle_____

(___/02pt) 09. _____bilayer_____

(___/19pt) Station 8:

(___/03pt) 01. _____Randy Schekman, James Roth, Thomas
Sudhof (1pt ea)_____

(___/06pt) 02. ___Clathrin, COPI, COPII (2pt
ea)_____

(___/02pt) 03. _____SNAREs_____

(___/02pt) 04. _____1.5 nm_____

(___/06pt) 05. transport, secretory, lysosomes, vacuoles, ectosomes, exosomes (any 3, 2 pt ea)

(___/18pt) Station 9:

(___/01pt) 01. ___G1___

(___/01pt) 02. ___S___

(___/01pt) 03. ___G2___

(___/01pt) 04. ___prophase___

(___/01pt) 05. ___metaphase___

(___/01pt) 06. ___anaphase___

(___/01pt) 07. ___telophase___

(___/01pt) 08. ___cytokinesis_

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(___/04pt) 09. ___G1-S, G2-M/prophase__(2pt ea)_____

(___/04pt) 10. A. _____DNA Damage_____

B. _____DNA replication_____

(___/04pt) 11. A. ___successful chromosome replication__

B. _____mitosis_____

(___/04pt) 12. _____cyclins and cyclin dependent
kinases_____ (2pt ea)_____

(___/20pt) Station 10:

(___/02pt) 01. ___oncogene_____

(___/01pt) 02. ___b___

(___/01pt) 03. ___e___

(___/01pt) 04. ___c___

(___/01pt) 05. ___a___

(___/01pt) 06. ___d___

(___/02pt) 07. _____necrosis_____

(___/02pt) 08. _____apoptosis_____

(___/04pt) 09. _____intrinsic (or mitochondrial) and
extrinsic (2pt ea)_____

(___/02pt) 10. _____Caspases_____

(___/17pt) Station 11:

(___/01pt) 01. ___C4___

(___/01pt) 02. ___CAM___

(___/01pt) 03. ___C3___

(___/01pt) 04. ___CAM___

(___/01pt) 05. ___CAM___

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(___/01pt) 06. ___C4__

(___/01pt) 07. ___C4__

(___/01pt) 08. ___C3__

(___/01pt) 09. ___CAM__

(___/01pt) 10. ___C4__

(___/01pt) 11. ___C3__

(___/02pt) 12. ___Calvin-Benson cycle_____

(___/02pt) 13. ___Hatch and Slack cycle_____

(___/02pt) 14. ___Crustacean acid metabolism_____

(___/20pt) Station 12:

(___/02pt) 01. ___GTP_____

(___/02pt) 02. ___(increase) cAMP_____

(___/04pt) 03. ___(receptor) antagonism_____

(___/02pt) 04. ___receptor dimerization_____

(___/02pt) 05. ___Tyrosine_____

(___/04pt) 06. _SH2 (Src homology 2), PTB (phosphotyrosine binding)_

(___/02pt) 07. ___a_

(___/02pt) 08. ___c_

(___/02pt) 09. ___d_

(___/02pt) 10. ___b_