

(Affiliated to the Tamil Nadu Dr M.G.R Medical University, Chennai)

B. Sc. CARDIOPULMONARY PERFUSION CARE TECHNOLOGY

1402 – PATHOLOGY

I YEAR

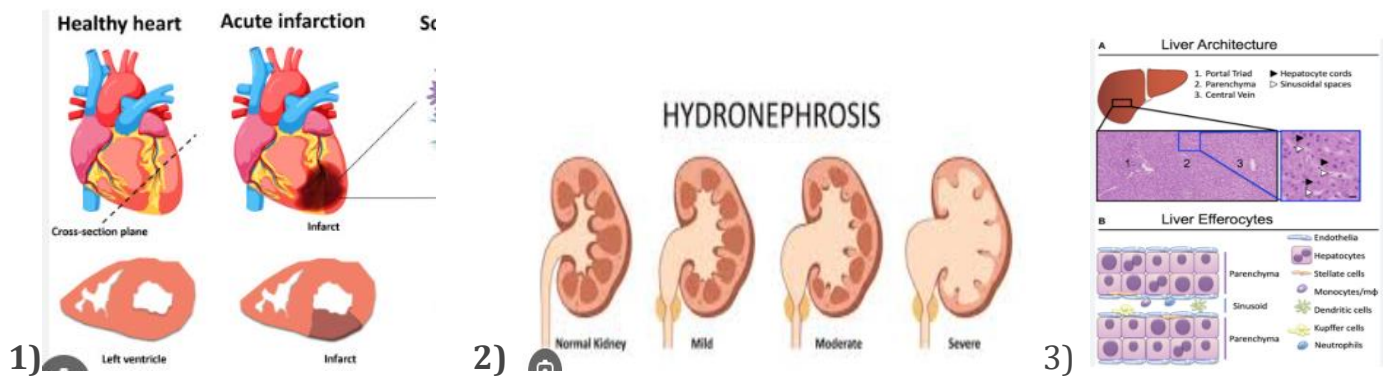
## LOGIC GRID - PUZZLE

## SCENARIO: THE CELLULAR CRISIS CONUNDRUM

Three different cells in three separate patients are experiencing an injury, and a pathologist must identify the **cause** (Etiology) and the resulting **morphological change** (Pathologic Feature) for each one based on the underlying cellular process.

**MATCH THE CELL INJURY SCENARIO TO THE PRIMARY ETIOLOGY AND THE RESULTING PATHOLOGIC FEATURE.**

Cell Injury Scenario	Etiology	Pathologic Feature
<b>Cell A:</b> A myocardial cell has suffered prolonged <b>Ischemia</b> , leading to severe ATP depletion and irreversible damage.	?	?
<b>Cell B:</b> A kidney tubule cell is exposed to <b>Toxins</b> that directly interfere with protein synthesis and cause the cell to swell due to failure of the Na <sup>+</sup> /K <sup>+</sup> pump.	?	?
<b>Cell C:</b> A hepatocyte is targeted by a T-cell mediated immune response that triggers a <b>Programmed Cell Death</b> pathway.	?	?



### EVALUATION AND JUSTIFICATION (RUBRICS):

Criterion	Marks (out of 10)
<b>Accuracy</b> (Correctly identifying all 6 matches)	4
<b>Logical Reasoning / Applying</b> (Connecting cause, process, and feature)	3
<b>Conceptual Understanding</b> (Explaining <i>why</i> the features occur)	2
<b>Presentation</b> (Clarity and structure of the final answer)	1
<b>Total Marks</b>	<b>10 Marks</b>