

**NURSE PRACTITIONER IN CRITICAL CARE POST GRADUATE RESIDENCY PROGRAM
FIRST YEAR EXAMINATION, FEBRUARY - 2026**

**ADVANCED PATHOPHYSIOLOGY & ADVANCED PHARMACOLOGY RELEVANT TO
CRITICAL CARE**

[Time Allotted: Three hours]**[Max. Marks: 70]****Note:** Attempt all question.

Draw suitable diagrams wherever necessary.

SECTION- A

(ADVANCED PATHOPHYSIOLOGY APPLIED TO CRITICAL CARE)

- Q.1.** Mr. Sanjay 52 year's old male is brought to the emergency with history of Diabetes Mellitus Type II. He is unconscious with GCS 5, SpO₂ 88%, Pulse rate 99 bpm, Blood pressure 80/50mmHg and blood glucose 45mg/dl. Discuss the following: (2+6+7=15)
- a. Discuss the possible diagnosis of Mr. Sanjay.
 - b. Explain the Emergency management for Mr. Sanjay in first 1 hour & 6 hour.
 - c. Elaborate the possible complications & their prevention for Mr. Sanjay.
- Q.2.** Answer **ANY TWO** of the following: (2x10=20)
- a. Pathophysiological changes in chronic renal failure
 - b. Types of shock with pathophysiological changes
 - c. Morphological and pathophysiological changes in hypertensive emergencies

SECTION- B

(ADVANCED PHARMACOLOGY RELEVANT TO CRITICAL CARE)

- Q.3.** Classify the drugs used for congestive heart failure. Describe the role of RAAS inhibitors in CHF. Enumerate the adverse effects and drug interactions of ACE inhibitors. (3+6+6=15)
- Q.4.** Answer **ANY TWO** of the following: (2x10=20)
- a. Atypical antipsychotics
 - b. Describe the drugs used in management of diabetic ketoacidosis
 - c. Lignocaine
