

Department of Physiology, KG's Medical University, UP, Lucknow
1st Terminal Examination of MBBS 2025 batch
(Date: 09/01/2026)

Time: 03 hr

M.M.: 100

Note: Attempt all questions in the given sequence

1. A 35 year old pregnant woman presented to primary health centre with complaint of easy fatigue for 2 months. She does not consult any obstetrician. Lately, she has developed a taste for eating chalk, she has no other complaint. Physical examination shows pale conjunctiva, mild spooning of nails, Stools are negative for occult blood.
Lab reports: Hb 7.1 gm/dl, Hct 23%, WBC 5,400/mm³, platelets 450,000/mm³; Mean Corpuscular volume (MCV) is 74 fl
 - a) What is your probable diagnosis? (03)
 - b) What other investigation needed to find out the causes of the condition? Give the rationale of each investigation. (07)
 - c) Enumerate 3 conditions with MCV less than 80fl (05)
2. Define Immunity. Explain the physiology of humoral and Cell-mediated Immune Response. Add a note on complement proteins. (15)
3. Enumerate the different transport mechanisms which transport substances through the cell membrane. Briefly discuss about sodium potassium pump. (15)
4. Classify nerve fibres. Discuss about properties of nerve fibre. (15)
5. Write difference between: (4x5=20)
 - a) Osmolality & Osmolarity
 - b) Fast & slow muscle fibers
 - c) Isotonic & Isometric contraction
 - d) Antidromic and orthodromic conduction
6. Write short notes on: (4x5=20)
 - a) Immunoglobulins
 - b) Hazards of blood transfusion
 - c) Neuromuscular Junction
 - d) Wallerian degeneration

* * *