

**Maharaja Krishnakumarsinhji Bhavnagar University**  
**Post Graduation University Practical Examination for M.D. - Biochemistry**  
**Examination Centre : Government Medical College , Bhavnagar**  
**Subject : Biochemistry**

**Date : 24 & 25 /10/2024 (Day-1)**  
**600**

**Total Marks -**

**1. Long Case - Parameter Analysis, Interpretation and co-relation discussion on below clinical case. (150)**

**Patient Detail : MRD \_\_\_\_\_**

**Sample ID \_\_\_\_21066\_\_\_\_\_**

This male patient , aged 56 years, came in emergency with alter-conciuosness . There were history of chronic alcoholism. On examination , it was found that he has edema on both lower limb, fluid collection in peritoneal cavity (Ascites), yellowish discolouration of skin & sclera (icterus), with hypotension (decrease Blood Pressure). Physician asked for blood investigation and abdominal ultra - sonography.

• Ultra Sono-Graphy detected

- ✓ Cirrhosis & Fatty Liver with Huge ascites
- ✓ With dilated Portal vein suggestive of Portal Hypertension

• Physician advise to give Following treatment

- ✓ Injection Dextran
- ✓ Injection 10% Dextrose with Injection Thiamine (B1)
- ✓ Injection Vitamin K
- ✓ Injection 10% Albumin
- ✓ Oral Neomycin (Anti-microbial, Antibiotic)
- ✓ Liq Lactulose (Laxative)
- ✓ Oral Phenylbutarate

**Answer The Following.**

- A. List and do analysis of laboratory examinations required in the patient based on current status.
- B. Perform test for given patient's urine sample analysis.
- C. Justify each abnormal parameter significance with patients present clinical status.
- D. Perform quality check for 5 critical parameter.
- E. Detailed report on biochemical basis of clinical features, laboratory reports and treatments given.

**1. Short Case - Parameter Analysis, Interpretation and co-relation discussion on below clinical case. (100)**

**Patient Detail : MRD \_\_\_\_\_ Sample ID \_\_\_\_\_**

**LSSTH Bhavnagar is NABL accredited since 2011. Do evaluation of raised daily non-conformities of clinical biochemistry laboratory of 2023 and 2024. On basis of evaluation perform following.**

- A. Categorized non-conformities
- B. Sort and prioritized non-conformities with it's specific objective criteria
- C. Write probable risk management of first ten sorted non-conformities.
- D. On basis of risk management, prepare documented evidence (presentation or doc file) to show continual improvement.

**2. Internal Audit of Clinical Laboratory as Per ISO 15189:2012 (75)**

Perform internal audit of biochemistry section of LSSTH as per ISO:15189:2022 & updated NABL-112 of clause 5.4, 5.5, 5.6, , 6.5, 6.6, 6.7, 6.8, 7.2, 7.3 .8.5, 8.6, 8.7, 8.8.

Prepare internal audit report with require immediate action, corrective action and preventive action defined NABL format.

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**Date : 24 & 25 /10/2024 (Day-2)**

**3. Micro-teaching on Following Topic & Followed by Discussion (75)**

- A. Phenylketonuria
- B. Diabetic ketoacidosis
- C. RiQAS Interpretation

**4. IQC Analysis - RCA & Action (25)**

Perform the root cause analysis (RCA) of outliers / trend / shift analysis for given IQC L-J Chart. Give your over all view on it's L-J chart with required corrective and preventive action.

**5. Performance check of Semi- Auto analyzer through any end point estimation parameter (25)**

**6. Dissertation Viva (50)**

**7. Theory Viva (100)**

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-The End-

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