D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1.

II M.Sc Biochemistry

Semester : III

Tile of the paper: ADVANCED CLINICAL BIOCHEMISTRY

Subject Code : 15CPBC3D

SECTION-A 6 MARKS

1. Explain how the blood is collected and preserved in clinical lab?
2. Explain the collection produces for urine?
3. Explain the clinical importance for collection of CSF.
4. Explain the collection procedure of (i)Bile (3) ii)Saliva (3)
5. Explain the importance of collection of feaces in lab?
6. What is quality assurance? Explain?
7. What are analytical and pre analytical variables
8. Explain Anemia and its types?
9. Write short notes on hemoglobinopathies and its type
10. Write short notes on Thalasemias?
11. What are coagulant and anticoagulants?
12. What are preservatives write is importance?
13. Explain the metabolic complications of diabetes mellitus?
14. Explain the glucose tolerance test?
15. Explain the glycocylated hemoglobin?
16. Write short notes on glucose tolerance test?
17. Describe (i) Fructosemia (3)(ii) Pentosuria (3)
18. Explain glucosuria and its type?
19. Explain lipoprotein abnormalities
20. Differentiate hypo and hyper cholesterolemia
21. Explain obesity and its types

22. Write short notes on CHD and clinical diagnosis.
23. Write short notes on (i) Taysach's disease (3) (ii) Niemen picks disease (3)
24. Describe Alkaptonuria
25. Explain phenyl ketonuria?
26. Explain homocystenuria and its clinical significance?
27. Explain tyrosinemia and its type
28. Explain amino acid urea and its types?
29. Write short notes on (i) Heartnup'sdisease (3)(ii)Homosystinuria (3)
30. Differentiate hypo and hyper uricemia?
31. Explain Gout and its types?
32. Explain Acid base balance.
33. Explain any two method of Thyroid functions test?
34. Explain assay of steroid hormones?
35. Explain assay of peptide hormone?
36. Explain clearance test and its types?
37. Explain the importance of hepatic function tests.
38. Explain how pancreatic function test.
39. Explain how the gastric content is collected in clinical laboratory.
40. Explain the importance of diagnostic enzymes in clinical biochemistry.
41. Explain clinical importance of LDH
42. Write short notes on (i) CPK (3)(ii) Aspartate transaminase
43. Write short notes on (i)Alanine transaminase (3) (ii) Lipase (3)
44. Explain clinical importance in assay of ϒ-glutamine transferase
45. Write short notes on (i) 5^1 nucleotides (3) (ii)Alkaline phosphatase(3).
46. What are inborn errors of metabolism? Write short notes on amniotic fluid?
47. Write the importance of prenatal analysis.
48. Differentiate endogenous and exogenous free radical.
49. What are enzymatic and nonenzymatic Antioxidants?
50. What are the morphological and metabolic change in tumor cell`.

51. What are tumor markers? Give example?
52. Write short notes on carcinogenic agent.

SECTION-B 15 Marks

1. Explain the various collection procedures of Biological specimen in clinical laboratories?
2. Write short notes on i) Quality control(5) ii) Analytical an Pre analytical Variables(10)
3. Explain external and internal quality control measurements?
4. Explain i) Anemia and its type(10) ii) Hemoglobinopathies(5)
5. Add a Note on i) Hematuria (5) ii) Thalasemia(5) iii) Hemoglobinopathies(5)
6. What are anticoagulants and preservatives? Explain with example?
7. Explain the laboratory test to measure coagulation and thrombolysis?
8. Explain the metabolic complications and types of Diabetes mellitus?
9. Write short notes on i) Glucose tolerance test (10) ii) Glycosylated hemoglobin(5)
10. Write short notes on i) Glycogen storage diseases (10) ii) Fructosemia (5)
11. Describe the different types of galactosemia and Pentosuria?
12. Elaborate the abnormalities of Lipoprotein
13. Explain how the lipoprotein abnormalities are diagnosed in clinical laboratories?
14. Write short notes on i) hypo and hyper cholesterolemia (10) ii) obesity (5)
15. Explain coronary heart disease (CHD) and its clinical diagnosis?
16. Add a note on i) Taysach's disease (8) ii) Niemann pick's Diseases(7)?
17. Give a brief account on i) Alkaptonuria (5) ii) homocystinuria(5) iii) Hartnup diseases(5)
18. Explain i) phenyl ketonuria (8) ii) types of tyrosenemia(7)
19. Differentiate hypo and hyper urecemia

20. Explain the etiology, clinical significance and Diagnostic procedure for Gout?
21. Explain the disorder of Acid base balance?
22. Elaborate the diagnosis of thyroid function test?
23. Explain how the steroid hormone is assayed in clinical laboratories
24. Explain the clinical significance of assaying of peptide and pituitary hormone?
25. Explain Renal function test?
26. Elaborate Pancreatic function test?
27. Explain the importance of gastric function test?
28. Explain the Principle and clinical significance of diagnostic enzymes?
29. Justify LDH is isoenzyme with reference to diagnosis of the disease?
30. Elaborate the principle and function of LDH?
31. Explain the enzyme which is elevated during Myocardial infarction?
32. Write short notes on i) Lipase(5) ii) Amylase (5) iii) elastase(5)?
33. Give a brief account on i) 5'nucleotidase (5) ii) gamma-glutamyl transferase(5) iii) Alkaline phosphatase(5)
34. Differentiate Aspartate transaminase and Alanine transaminase ?
35. Explain the importance of prenatal diagnosis?
36. Write short notes on i) Amniotic fluid (5) ii) plasma cells(5)
    1. iii) Biopsy specimen (5)
37. Explain i) Neuroseptal defect (10) ii) Lung immaturity in infants(5)
38. Give an account on free radicals and its types with example
39. Explain the role of enzymatic and non enzymatic antioxidants in cancer biology
40. Explain the morphological and metabolic changes observed in cancer cells
41. Give an detail picture about tumor markers
42. Elaborate carcinogen with example