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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

Test -1, SEPT, EXAMINATION - 2016

B.Tech (BT) IXth /M.Tech (BT) IIIrd Semester

COURSE NAME: Clinical Diagnostics

MAX.MARKS:15

COURSE CODE:14M1WBT332

MAX.TIME: 1 HR.

Note: Carrying of mobile phones during examinations will be treated as a case of unfair means.

- Q1. Differentiate between acute disease and asymptomatic disease. Which form of disease is difficult to diagnose? Justify your answer with suitable example. (2 marks)
- Q2. Why a positive control and negative control is required in molecular diagnosis through PCR? (1.5 marks)
- Q3. Explain various molecular methods of confirmation of amplified amplicon after PCR analysis.(1.5 marks)
- Q4. Define the significance of following.

(2 marks)

- a) Fluorescence resonance energy transfer in Real time PCR
- b) Serum isolation and transportation for clinical diagnosis
- Q5. What test are required for diagnosis of Alzheimer's diseases?

(1 mark)

- Q6. What is the principle of histopathology? How would you prepare histopathology slides? How would you differentiate squamous cell carcinoma of lungs with healthy epithelial tissues; and atherosclerosis of aorta with healthy muscle tissues?

 (2 marks)
- Q7. Provide the normal ranges for FBC, clotting, blood gases, endocrinology and fats in blood test. (2 marks)
- Q.8. What is blood acid-base disorder? How would you diagnose it based on the HCO₃ and pCO₂? (1 mark)
- Q.9. Explain Immunohistochemistry. How would you label antigens for diagnosis? Give microscopic features of apocrine mixed tumour. (2 marks)