

Course No: DNT 1303
Course Title: Physics
Date: 08/01/2014
No. of Questions: (5)
Time: 2hours
Using Calculator (yes)

University of Palestine



Final Exam
2013/2014
Total Grade:60

Instructor Name: Dr. Hossam Elaqla
Student No.: _____
Student Name: _____
College Name: _____
Dep. / Specialist: _____
Using Dictionary (No)

Question One:

Discuss the effect of Fluid and acid on teeth (surface tension, surface energy etc.).
Discuss the factors affecting surface tension in liquids.
Discuss the factors affecting the wetting and its significance in dentistry.

Question Two:

Discuss the difference between adsorption, absorption and sorption.
Discuss the classification of adhesive bonds, and the factors affecting its strength.
Discuss the difference between compression and tensile behavior on ceramic and metals.

Question Three:

Discuss the Factors affecting the Tear Strength and its significance in dentistry.
Discuss the importance of viscosity on dentistry.
Discuss the answer of visco-elastic material for a compressive load.

Question Four:

Discuss the Types of Wear.
Discuss the factors affecting the properties of polymer.
Discuss the Classification of polymers/resins according to initiation activation.

Question Five:

For an amalgam in the mouth where $\alpha = 1.8 \times 10^{-5} \text{ C}$ and the temperature is 37C. The minimum temperature is 5C for ice cream and maximum temperature is 60C for hot chocolate.

Determine $\frac{\Delta L}{L_0}$ for the amalgam and the thermal stress for both temperature where elastic modulus (E) is 150GPa.

End of Questions
Good Luck