**جامعة الملك سعود الاختبار النهائي**

**كلية العلوم الفصل الثاني 1429 / 1430**

**قسم الإحصاء وبحوث العمليات مقرر 145 احص**

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| **الاثنين 22 /6 / 1430 هـ الساعة : 8 - 11** |

**اسم الطالبة : -------------------------------------------------------------------------------------**

**رقم الطالبة : --------------------------------------------------------------------------------------**

**رقم الشعبة : ----------------------------- رقم التسلسل : -----------------------------------------**

**أستاذة المقرر : -----------------------------------------------------------------------------------**

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**For each question, write the letter in the space given in the following table**

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| ***Question*** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| ***Answer*** |  |  |  |  |  |  |  |  |  |  |

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| ***Question*** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** |
| ***Answer*** |  |  |  |  |  |  |  |  |  |  |

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| ***Question*** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |
| ***Answer*** |  |  |  |  |  |  |  |  |  |  |

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| ***Question*** | **31** | **32** | **33** | **34** | **35** | **36** | **37** | **38** | **39** | **40** |
| ***Answer*** |  |  |  |  |  |  |  |  |  |  |

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| ***Question*** | **41** | **42** | **43** | **44** | **45** | **46** | **47** | **48** | **49** | **50** |
| ***Answer*** |  |  |  |  |  |  |  |  |  |  |

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| ***Question*** | **51** | **52** | **53** | **54** | **55** | **56** | **57** | **58** | **59** | **60** |
| ***Answer*** |  |  |  |  |  |  |  |  |  |  |

**Good Luck**

**Question (5):**

In a sample of 20 patients with a certain illness, the mean temperature (in C° )

was 37.Assume that the population is normally distributed with variance 0.24 .

Find a 95% confidence interval for the average temperature.

46-The value of α is

(a) 0.05 (b)0.025 (c) 0.95 (d)0.50n(e)one of these

47-The correct formula is

(a) (b) (c)

(d) (e)none of these

48-The confidence interval is

(a) (34.896,39.104) (b) (36.820,37.180) (c) (32.706,39.191)

(d) (36.785,37.215) (e) none of these.

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In a sample of 50 pregnant women, the mean hemoglobin level was 11g/dl with standard deviation of 0.5.Assume that the population is not normal. Using α=0.05, test if the average hemoglobin level is greater than 10.

49-The needed assumptions are:

(a)normal,σ2 unknown and n small (b) not normal,σ2 unknown and n small

(c)not normal, σ2unknown and n large (d)normal, σ2 known and n large

(e)not normal, σ2 known and n large

50-The hypotheses are

(a) Ho: μ=10 (b) Ho:μ>10 (c)Ho:μ<10 (d)Ho:μ≤10 (e) none of these

HA: μ10HA:μ≤10HA:μ>10HA:μ>10

51-The test statistic is

(a) (b) (c) (d) (e) none of these

52-The value of the test statistic is

(a) 0.283(b) 14.142 (c) 28.284 (d)1 (e)none of these

53-The decision rule is

(a)Reject H0 if Z> 1.645 (b)Reject H0 if Z> 1.96 (c) Reject H0 if Z<-1.645

(d) Reject H0 if Z< -1.96 or Z>1.96 (e) none of these

54-The decision is

(a)Do not reject H0 (b) reject H0 (c)Reject H0 since<

(d)Reject HA since< (e) none of these

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**Question (6):**

59-If P-value =0.035 and α=0.10,then the decision in hypothesis testing is

(a) Information is not sufficient(غير كافي) to make a decision. (b) reject HA

(c)Reject H0(d) none of these

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End of the questions