**جامعة الملك سعود الاختبار الفصلى الأول**

 **كلية العلوم الفصل الدراسى الثانى 1431 / 1432**

 **قسم الإحصاء وبحوث العمليات مقرر 106 احص**

**الثلاثاء 24 / 4 / 1432 هـ الساعة :00 12–1:00**

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

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

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

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

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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*** |  |  |  |  |  |  |  |  |  |  |

 ***Good Luck***

**Answer the following questions:**

**Question 1:**

**We measure the age (in year) for a sample of 60 women having children. Complete the following table, then answer**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Cumulative frequency** | **Relative frequency** | **Mid interval** | **True classes** | **frequency** | **Age** |
|  | 0.05 | 17.5 |  | 3 | 15-20 |
|  | 0.2 | 23.5 |  |  | 21-26 |
| 33 | 0.3 |  |  | 18 | 27-32 |
| 50 |  | 35.5 |  | 17 |  |
| 60 |  | 41.5 |  | 10 | 39-44 |
|  |  |  |  |  | **Total** |

1-The type of the variable is

(a) The age (b) quantitative continuous (c) women having children

(d) Qualitative (e) none of these

2-The width is

(a) 6 (b) 10 (c) 5 (d) 4 (e) none of these

3-Number of intervals is

(a) 6 (b) 5 (c) 24 (d) 12 (e) none of these

4- The range is

(a) 29 (b) 25 (c) 5 (d) 90 (e) none of these

5-The appropriate diagram for this table is

(a) Histogram (b) Bar chart (c) Pie chart (d) none of these

6- The third mid interval is

(a) 32 (b) 29.5 (c) 5 (d) 4 (e) none of these

7-Number of women that has age 21 year or more is

(a)19 (b) 57 (c) 3 (d) 71 (e) none of these

8-The percent of women that has age between 27 year and 32 year is

 (a)30% (b) 54.44% (c) 35% (d) 48% (e) none of these

9-The relative frequency of women that has age greater than 32 year is

(a) 26 (b) 0.28 (c) 0.45 (d) 0.17 (e) none of these

10-The cumulative frequency of women that has age less than 27 year is

(a) 37 (b) 22 (c) 27 (d) 15 (e) none of these

11- The fifth true class is

(a) 40.5-44.5 (b) 38.5-44.5 (c) 24.5 (d) 42 (e) none of these

12- The smallest unit is

(a) 0.5 (b) 1 (c)5 (d) 6 (e) none of these

**\* For the following data**

 **L, S, S, L, A, L, H, S. Then**

13- The best measure of central tendency is

(a) The mean (b) the median (c) the mode (d) the variance

(e) None of these

 14- Number of admissions of patients in a clinic on a given day is

(a) Discrete (b) continuous (c) qualitative (d) none of these

15- Which one of the following is an example of statistic

(a) The population mean (b) the histogram (c) the sample median

(d)the population variance (e) none of these

**Question 2:**

**\* )We measured the number of hours of exercises in a week for sample of 10 persons as follow**

**7 4.5 4 9 5 5 9.5 3.5 5 6**

16- The sample mean is

(a) 5.85 (b) 10 (c) 2.0419 (d) 5.54 (e) none of these 17- The sample standard deviation is

 (a) 5.85 (b) 2.0419 (c) 2.4187 (d) 4.1694 (e) none of these 18- The sample median is

 (a) 5.85 (b) 10 (c) 4, 5 (d) 5 (e) none of these

19- The sample mode is

 (a) 5.85 (b) 4, 5 (c) 5 (d) 5.5 (e) none of these

 **\*\*)We measure the hemoglobin level and the ages of sample of patients in a certain clinic:**

|  |  |  |
| --- | --- | --- |
| Standard Deviation | Mean  |  |
| 10 | 60 | hemoglobin level |
| 6 | 30 | Age |

 20- The hemoglobin level has

(a) More variation (b) less variation (c) the same variation

 (e) none of these

**End of Questions**