



EXAMINERS' REPORTS

LEVEL 3 CERTIFICATE IN STATISTICAL PROBLEM SOLVING USING SOFTWARE

SUMMER 2019

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The annual Statistical Report (issued in the second half of the Autumn Term) gives overall outcomes of all examinations administered by WJEC.

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STATISTICAL PROBLEM SOLVING USING SOFTWARE

Level 3 Certificate

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EXTERNAL ASSESSMENT

General Comments

The general standard was very good.

Comments on individual questions/sections

- Q.1 This question was extremely well answered. However, a few candidates lost marks if they commented on how to select the sample rather than what factors would need to be considered.
- Q.2 (a) Most candidates stated correctly that one of the conditions for the t -test is that the samples come from a normal distribution. However, only a few correctly stated a second assumption.
- (b) (i) This part was well answered. Some candidates lost a mark as they did not include 'average' or 'mean' in their hypotheses. Others lost a mark as they did not state a one-sided alternative hypothesis.
- (ii) This part was answered well. Many candidates gave the conclusion before comparing the p -value to the significance level. They were not penalised for doing this.
- Q.3 Very few candidates correctly stated the null and alternative hypotheses. Many stated the null hypothesis as 'the month of birth of South African 14-year-olds cannot be modelled by a discrete uniform distribution'. This lost them one mark. Follow through marks were awarded where appropriate.
- Q.4 This question was extremely well answered.
- Q.5 (a) Very few candidates gained marks in this part.
- (b) Some candidates gained marks in this part by commenting that there was no overlap in the confidence intervals
- Q.6 (a) This part was well answered. Many candidates lost a mark for not stating that there was a 'strong' correlation between the two variables.
- (b) This part was very well answered. Again, some candidates gave the conclusion before comparing the test statistic to the critical value. They were not penalised for doing this.
- (c) Some students correctly interpreted the gradient, but did not include 'on average' or 'suggests'. The latter lost them one mark.
- (d) A few candidates explained why the model in part (c) could not be used to predict upper arm circumference from waist circumference.

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WJEC
245 Western Avenue
Cardiff CF5 2YX
Tel No 029 2026 5000
Fax 029 2057 5994
E-mail: exams@wjec.co.uk
website: www.wjec.co.uk