ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

SOLUTION OF WORKSHEET-8

SUBJECT – STATISTICS

Term : 1st

Topic – INTERPOLATION **Class: XI**

Full Marks: 15 **Date:24.06.2020**

Q1. Select the correct alternative of the following questions.

(i) When the arguments are monotonically increasing with same increment the method used in interpolation formula is

(a)Newton's forward (b) Newton's backward

(c) either of two (d) none of these

(ii) When the arguments are monotonically decreasing with same increment the method used in interpolation formula is

(a)Newton's forward (b) Newton's backward

(c) either of two (d) none of these

(iii) When the arguments are monotonic with same increment the method used in interpolation formula is

(a)Newton's forward (b) Newton's backward

(c) either of two (d) none of these

(iv) When the arguments are monotonically increasing with different increment the method used in interpolation formula is

(a)Newton's forward (b) Newton's backward

(c) either of two **(d) none of these**

(v) When the arguments are monotonically decreasing with different increment the method used in interpolation formula is

(a)Newton's forward (b) Newton's backward

(c) either of two **(d) none of these**

(vi) When the arguments are monotonically non increasing with same increment the method used in interpolation formula is

(a)Newton's forward (b) Newton's backward

(c) either of two (d) none of these

(vii) When the arguments are monotonically non decreasing with same increment the method used in interpolation formula is

(a)Newton's forward (b) Newton's backward

(c) either of two (d) none of these

(viii) When the arguments are monotonically non increasing with different increment the method used in interpolation formula is

(a)Newton's forward (b) Newton's backward

(c) Lagrange's (d) none of these

(ix) When the arguments are monotonically non decreasing with different increment the method used in interpolation formula is

(a)Newton's forward (b) Newton's backward

(c) Lagrange's (d) none of these

(x) If the fourth order difference is zero, then $\Delta f(x) are$

(a) increasing (b) decreasing **(c) may be both**(d) none of these

(xi) If all the entries have value -4, then the polynomial is of degree

(a) -1 **(b) 0** (c) 1 (d) none of these

(xii) If all the entries have same 5th order differences as same value, then the polynomial is of degree

(a) 0 (b) 1 **(c) 4** (d) none of these

(xiii) When the entries are monotonically increasing with different increment the method used in interpolation formula is

(a)Newton's forward (b) Newton's backward

(c) either of two **(d) none of these**

(xiv) When the entries are monotonically decreasing with different increment the method used in interpolation formula is

(a)Newton's forward (b) Newton's backward

(c) either of two **(d) none of these**

(xv) $\Delta =$

(a) $\mathbf{E-1}$ (b) $E+1$ (c) E (d) none of these

Prepared by

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