PART III.

APPENDICES.

APPENDIX A.

RESULTS OF THE HIGH SCHOOL AND UNIVERSITY MATRICULATION EXAMINATIONS, 1926.

The following are the names of the winners of His Excellency the Governor-General's silver medals:—

Student.	High School.	Percentage.
Roderick A. Pilkington	King George, Vancouver	86.2
William Randolph Beamish	South Burnaby	85.8
Donald Leigh Layman	King Edward, Vancouver	84.4
Farley Baird Dickinson	Chilliwack	83.6
Marion Eloise Dow	South Vancouver	83.4

The winners of the Royal Institution Scholarships of $100 awarded by the University of British Columbia on the results of the Matriculation Examinations were:—

District.	Student.	High School.	Percentage.
No. 1	Marjorie Emma Waites	Victoria	82.0
No. 2	Florence Olson	Ladysmith	80.3
No. 3	Donald Leigh Layman	King Edward, Vanncouver	84.4
No. 4	William Randolph Beamish	South Burnaby	85.8
No. 5	Charles William Brazier	Vernon	76.3
No. 6	Anthony Kobus	Fernie	83.0

A Scholarship of $150 was awarded to Roderick A. Pilkington, King George High School, Vancouver, the student obtaining the highest standing in the Province in the Junior Matriculation Examination.

A Scholarship of $75 was awarded to Walter Henry Hickman, Vernon High School, the student obtaining the highest standing in the Province in the Senior Matriculation Examination.

NUMBER OF SUCCESSFUL CANDIDATES AT EACH CENTRE.

Examination Centre.	Grade IX.	Grade X.	Grade XI.	Grade XII.	Third-year Commercial.	Third-year Household Science.	Third-year Technical.	Normal Entrance.	Normal Entrance and Junior Matriculation.	Total.
Abbotsford: High	....	....	1	....	....	....	....	....	....	1
Agassiz: High	....	....	3	....	....	....	....	....	....	3
Armstrong:										
High	....	....	....	....	....	....	....	2	....	2
Private Study	....	....	1	....	....	....	....	1	....	2
Ashcroft: Private Study	1	....	....	....	....	....	....	....	....	1
Black Creek: Public	2	....	....	....	....	....	....	....	....	2
Brentwood College: Private	....	....	5	2	....	....	....	....	....	7
Bridgeport: High	....	....	2	....	....	....	....	2	3	7
Burnaby:										
North	....	....	6	....	....	....	....	2	....	8
South	....	....	29	....	....	....	....	8	1	38
Private Study	....	....	1	....	....	....	....	....	....	1
Burns Lake:										
Public	1	....	....	....	....	....	....	....	....	1
Francois Lake Public	2	....	....	....	....	....	....	....	....	2
Campbell River: Public	2	....	....	....	....	....	....	....	....	2
Cassidy: Superior	2	1	....	....	....	....	....	....	....	3
Chase: Superior	2	....	....	....	....	....	....	....	....	2
Chemainus: Superior	2	1	....	....	....	....	....	....	....	3
Chilliwack:										
High	....	....	17	5	....	....	....	6	....	28
Coqualeetza Private	3	....	....	....	....	....	....	....	....	3
Coalmont:										
Superior	1	2	....	....	....	....	....	....	....	3
Tulameen Public	1	....	....	....	....	....	....	....	....	1
Courtenay: High	....	....	3	....	....	....	....	....	2	5
Cranbrook:										
High	....	....	6	1	....	....	....	....	1	8
Wardner Public	1	....	....	....	....	....	....	....	....	1
Private Study	....	....	1	....	....	....	....	....	....	1
Creston: High	....	....	9	....	....	....	....	2	....	11
Cumberland: High	....	....	5	....	....	....	....	4	....	9
Dewdney: Superior	1	1	....	....	....	....	....	....	....	2
Duncan:										
High	....	....	2	....	....	....	....	....	....	2
Queen Margaret's Private	....	....	1	....	....	....	....	....	....	1
Enderby: High	....	....	1	....	....	....	....	3	1	5
Esquimalt: High	....	....	1	....	....	....	....	....	....	1
Fernie: High	....	....	6	....	....	....	....	6	....	12
Ganges:										
Superior	2	6	....	....	....	....	....	....	....	8
Preparatory Private	....	1	....	....	....	....	....	....	....	1
Mrs. Halley's Private	....	1	1	....	....	....	....	....	....	2
Golden:										
High	....	4	....	....	....	....	....	....	....	4
McMurdo Public	2	....	....	....	....	....	....	....	....	2
Granby Bay: High	....	....	2	....	....	....	....	....	....	2
Grand Forks: High	....	....	6	....	....	....	....	3	1	10
Greenwood:										
Superior	4	2	....	....	....	....	....	....	....	6
Ingram Mountain Public	1	....	....	....	....	....	....	....	....	1
Private Study	1	....	....	....	....	....	....	....	....	1
Hazelton: New Hazelton Public	....	....	1	....	....	....	....	....	....	1
Hedley: Superior	2	....	....	....	....	....	....	1	....	3
Howe Sound:										
High	....	....	....	....	....	....	....	1	....	1
Private Study	....	1	....	....	....	....	....	....	....	1

NUMBER OF SUCCESSFUL CANDIDATES AT EACH CENTRE—*Continued.*

Examination Centre.	Grade IX.	Grade X.	Grade XI.	Grade XII.	Third-year Commercial.	Third-year Household Science.	Third-year Technical.	Normal Entrance.	Normal Entrance and Junior Matriculation.	Total.
Ioco: Superior	3	....	2	....	....	....	....	....	....	5
Kamloops:										
High	....	....	7	4	....	....	....	1	1	13
Clinton Public	1	....	....	....	....	....	....	....	....	1
St. Ann's Academy	....	....	....	....	....	....	....	1	....	1
Kaslo: High	....	....	1	3	....	....	....	1	1	6
Kelowna:										
High	....	....	8	....	....	....	....	7	....	15
Private Study	....	....	1	....	....	....	....	....	....	1
Keremeos: High	....	....	....	....	....	....	....	....	1	1
Kingcome Inlet: Public	1	....	....	....	....	....	....	....	....	1
Kitsumgallum: Superior	....	....	1	....	....	....	....	....	....	1
Ladner: High	....	....	7	....	....	....	....	3	1	11
Ladysmith: High	....	....	3	....	....	....	....	2	7	12
Langley: High	....	....	2	....	....	....	....	2	1	5
Lawn Hill: Public	3	....	....	....	....	....	....	....	....	3
Lumby: Superior	3	1	....	....	....	....	....	....	....	4
Maple Ridge: MacLean High	....	....	2	2	....	....	....	....	....	4
Matsqui: High	....	....	....	....	....	....	....	1	1	2
Menzies Bay: Private Study	1	....	....	....	....	....	....	....	....	1
Merritt: High	....	....	....	....	....	....	....	3	....	3
Mission: High	....	....	4	....	....	....	....	....	....	4
Mackenzie: Public	3	....	....	....	....	....	....	....	....	3
Nakusp: High	6	2	....	....	....	....	....	1	1	10
Nanaimo:										
High	....	....	7	3	....	....	....	2	8	20
North Cedar Public	2	....	....	....	....	....	....	....	....	2
Private Study	....	....	2	1	....	....	....	....	....	3
Nelson:										
High	....	....	24	10	....	....	....	4	....	38
Private Study	....	....	1	....	....	....	....	....	....	1
New Denver:										
High	....	....	2	....	....	....	....	1	....	3
Private Study	....	....	1	....	....	....	....	....	....	1
New Westminster:										
High	....	....	44	....	....	....	....	13	1	58
Technical High	....	....	....	....	2	3	1	....	....	6
Columbian College Private	....	3	....	....	....	....	....	....	....	3
St. Ann's Academy	....	....	1	....	....	....	....	....	....	1
Private Study	....	....	1	....	....	....	....	1	....	2
Oak Bay:										
High	....	....	38	....	....	....	....	1	....	39
Rhodes' Private	1	....	....	....	....	....	....	....	....	1
St .Michael's Private	3	....	....	....	....	....	....	....	....	3
Private Study	....	....	....	1	....	....	....	....	....	1
Ocean Falls: High	....	....	1	....	....	....	....	....	....	1
Oliver:										
Superior	....	1	....	....	....	....	....	....	....	1
Osoyoos Public	2	....	....	....	....	....	....	....	....	2
Oyama: High	....	....	1	....	....	....	....	....	1	2
Parksville: Superior	3	2	....	....	....	....	....	....	....	5
Penticton:										
High	....	....	5	5	....	....	....	1	....	11
Private Study	....	....	....	....	....	....	....	1	....	1
Point Grey:										
King George V. High	....	....	31	....	7	....	....	1	1	40
Lord Byng High	....	....	12	....	....	....	....	....	....	12

NUMBER OF SUCCESSFUL CANDIDATES AT EACH CENTRE—*Continued.*

Examination Centre.	Grade IX.	Grade X.	Grade XI.	Grade XII.	Third-year Commercial.	Third-year Household Science.	Third-year Technical.	Normal Entrance.	Normal Entrance and Junior Matriculation.	Total.
Point Grey—*Continued.*										
Prince of Wales High	....	....	23	....	....	....	....	....	....	23
St. Anthony's College Private	2	....	2	....	....	....	....	....	....	4
Vancouver College Private	....	....	2	....	....	....	....	....	....	2
Private Study	1	1	1	1	....	....	....	....	....	4
Port Alberni:										
High	....	....	2	....	....	....	....	....	....	2
Kildonan Public	2	....	....	....	....	....	....	....	....	2
Port Clements: Public	2	....	....	....	....	....	....	....	....	2
Port Coquitlam:										
High	....	....	1	....	....	....	....	....	....	1
Pitt Meadows Superior	2	2	....	....	....	....	....	....	....	4
Powell River: High	....	....	4	....	....	....	....	....	....	4
Prince George:										
High	....	....	3	....	....	....	....	1	....	4
Dome Creek Public	2	....	....	....	....	....	....	....	....	2
Loos Public	2	....	....	....	....	....	....	....	....	2
Prince Rupert:										
High	....	....	7	1	....	....	....	3	....	11
Private Study	....	1	....	....	....	....	....	....	....	1
Princeton: High	....	....	....	....	....	....	....	1	....	1
Procter: Superior	5	1	....	....	....	....	....	....	....	6
Revelstoke:										
High	....	....	6	3	....	....	....	2	1	12
Galena Bay Public	1	....	....	....	....	....	....	....	....	1
Robson: Deer Park Public	1	....	....	....	....	....	....	....	....	1
Rolla:										
Public	1	4	....	....	....	....	....	3	....	8
Pouce Coupe Central Public	1	....	....	....	....	....	....	....	....	1
Swan Lake North Public	1	....	....	....	....	....	....	....	....	1
Rossland:										
High	....	....	....	....	....	....	....	....	3	3
Private Study	....	....	....	....	....	....	....	1	....	1
Ruskin: Superior	....	3	....	....	....	....	....	....	....	3
Rutland: Superior	2	....	....	....	....	....	....	....	....	2
Saanich, North: Superior	5	4	....	....	....	....	....	....	....	9
Salmon Arm:										
High	....	....	3	3	....	....	....	....	5	11
Sunnybrae Public	3	....	....	....	....	....	....	....	....	3
Private Study	....	....	1	....	....	....	....	....	....	1
Silverton: Superior	1	6	....	....	....	....	....	....	....	7
Slocan: High	....	....	2	....	....	....	....	....	....	2
Smithers: High	....	....	1	....	....	....	....	....	1	2
Private Study	....	....	1	....	....	....	....	....	....	1
Soda Creek: Macalister Public	1	....	....	....	....	....	....	....	....	1
Sooke: Superior	....	2	....	....	....	....	....	....	....	2
Squamish: Public	2	....	....	....	....	....	....	....	....	2
Stewart: Superior	2	....	3	....	....	....	....	....	....	5
Summerland: High	....	....	2	....	....	....	....	....	1	3
Surrey: High	....	....	2	....	....	....	....	3	....	5
Trail:										
High	....	....	5	....	....	....	....	4	1	10
Fruitvale Public	1	....	....	....	....	....	....	....	....	1
Private Study	....	....	1	....	....	....	....	....	....	1
Union Bay: Superior	2	3	....	....	....	....	....	....	....	5
Vananda:										
Public	1	1	....	....	....	....	....	....	....	2
Gillis Bay Public	2	....	....	....	....	....	....	....	....	2

NUMBER OF SUCCESSFUL CANDIDATES AT EACH CENTRE—*Continued.*

Examination Centre.	Grade IX.	Grade X.	Grade XI.	Grade XII.	Third-year Commercial.	Third-year Household Science.	Third-year Technical.	Normal Entrance.	Normal Entrance and Junior Matriculation.	Total.
Vancouver:										
Britannia High	....	....	54	....	6	....	....	6	....	66
King Edward High	....	....	81	....	....	1	....	9	2	93
King George High	....	....	47	....	....	....	....	2	....	49
Commerce High	....	....	....	....	23	....	....	....	....	23
Kitsilano High	....	....	35	....	....	....	....	3	....	38
Technical High	....	....	5	....	....	....	5	....	....	10
Correspondence School Private	....	....	....	....	....	....	....	1	....	1
Crofton House Private	....	10	14	....	....	....	....	....	....	24
Pharmacy Private	....	....	6	8	....	....	....	....	....	14
St. Ann's Private	....	....	1	....	....	....	....	1	....	2
St. Marina Private	4	1	1	....	....	....	....	....	....	6
Shaughnessy Private	2	2	....	....	....	....	....	....	....	4
Preparatory Private	2	....	....	....	....	....	....	....	....	2
Private Study	....	....	4	2	....	....	....	3	....	9
Vancouver, North:										
High	....	....	25	....	....	....	....	5	....	30
Kingsley Private	4	....	....	....	....	....	....	....	....	4
Sprott-Shaw Private	....	....	2	....	....	....	....	....	....	2
Tutorial Academy Private	....	....	1	....	....	....	....	....	....	1
Vancouver, South: High	....	....	72	....	15	....	....	7	1	95
Vancouver, West: High	....	....	3	....	....	....	....	1	....	4
Vanderhoof:										
Superior	1	1	....	....	....	....	....	....	....	2
Finmoore Public	1	....	....	....	....	....	....	....	....	1
Fort Fraser Public	2	....	....	....	....	....	....	....	....	2
Fort Fraser, North, Public	2	....	....	....	....	....	....	....	....	2
Vernon:										
High	....	....	8	5	....	....	....	2	....	15
St. Michael's Private	4	4	2	....	....	....	....	....	....	10
Preparatory Private	1	....	....	....	....	....	....	....	....	1
Private Study	....	....	....	1	....	....	....	....	....	1
Victoria:										
High	....	....	67	....	13	....	....	10	1	91
Collegiate Private	....	....	1	....	....	....	....	....	....	1
Rocklands Private	1	2	1	....	....	....	....	....	....	4
St. Ann's Private	....	....	3	....	....	....	....	....	....	3
St. George's Private	....	3	2	....	....	....	....	....	....	5
St. Louis Private	....	....	1	....	....	....	....	....	....	1
St. Margaret's Private	10	14	6	....	....	....	....	....	....	30
Sefton College Private	1	....	....	....	....	....	....	....	....	1
University Private	....	2	....	....	....	....	....	....	....	2
Private Study	....	....	4	1	....	1	....	2	....	8
Waldo: Superior	3	....	....	....	....	....	....	....	....	3
Westbank Townsite: Superior	....	2	....	....	....	....	....	....	....	2
Williams Lake: Private Study	1	....	....	....	....	....	....	....	....	1
Totals, June, 1926	149	98	837	62	66	5	6	158	50	1,431
Totals, June, 1925	140	71	924	48	33	10	10	278	71	1,585

HIGH SCHOOL ENTRANCE EXAMINATION, JUNE, 1926.

The following are the results of the examination for entrance to high school held in the public schools of the Province at the end of June.

The names of the winners of His Excellency the Governor-General's bronze medals are:—

District.	Name.	School.	Marks.
No. 1.	Kenneth Ross MacKenzie	North Ward School, Victoria	416
No. 2.	Gordon Nelson Carter	Nanaimo School	435
No. 3.	Helen C. Lockhart	General Gordon School, Vancouver	412
No. 4.	Mary Lamberton	Walter Moberley School, South Vancouver	434
No. 5.	Charles Gwynne Fothergill	Gilmore Avenue School, Burnaby	422
No. 6.	Marjorie MacLennan	Raft River School	404
No. 7.	Verna Vina Demerling	Enderby School	419
No. 8.	Joy Susan Henshaw Kemp	Central School, Trail	387
No. 9.	Margaret Elizabeth Fraser	Erickson School	439
No. 10.	Helen Mary Walker	Booth Memorial School, Prince Rupert	405

NUMBER OF SUCCESSFUL CANDIDATES AT EACH SCHOOL.

Centre.	School.	Promoted on Recommendation.	Promoted on Examination.	Total.
Abbotsford	Poplar-Matsqui	.....	2	2
	Abbotsford	.....	12	12
Agassiz	Agassiz	16	.....	16
Alberni	Alberni	9	.....	9
	Port Alberni	20	.....	20
	Cherry Creek Valley	.....	3	3
Alice Arm	Alice Arm	.....	1	1
Armstrong	Armstrong-Spallumcheen	23	8	31
Arrowhead	Arrowhead	.....	1	1
	Sproat	.....	1	1
Ashcroft	Lady Byng	.....	10	10
Barkerville	Barkerville	.....	2	2
Bella Coola	Bella Coola	.....	4	4
	Bella Coola, Lower	.....	1	1
	MacKenzie	.....	3	3
	Noosatsum	.....	1	1
Bradner, Matsqui	Aberdeen	.....	1	1
	Bradner	.....	2	2
Bridgeport, Richmond	Bridgeport	38	1	39
	Lord Byng	9	.....	9
Britannia Beach	Britannia Beach	.....	5	5
	Britannia Mine	.....	2	2
Burgoyne Bay	Beaver Point	.....	3	3
Burnaby	Edmonds Street	61	12	73
	Gilmore Avenue	45	21	66
	Inman Avenue	15	.....	15
	Kingsway West	54	6	60
	Nelson Avenue	26	2	28
	Schou Street	.....	3	3
Burns Lake	Decker Lake	.....	1	1
	Francois Lake, South	.....	1	1
	Palling	.....	1	1
Burton	Arrow Park, East	.....	1	1
	Arrow Park, West	.....	1	1
	Carroll's Landing	.....	2	2
Campbell River	Campbell River	.....	3	3
Cape Scott	Cape Scott	.....	2	2
Cassidy	Cassidy	.....	2	2
	Waterloo	.....	5	5
Castlegar	Castlegar	.....	1	1
	Kinnaird	.....	3	3
	Robson	.....	1	1

NUMBER OF SUCCESSFUL CANDIDATES AT EACH SCHOOL—*Continued.*

Centre.	School.	Promoted on Recommendation.	Promoted on Examination.	Total.
Chase	Chase	.....	6	6
	Turtle Valley	.....	1	1
Chilliwack	Chilliwack	33	.....	33
	Atchelitz	.....	12	12
	Camp Slough	.....	5	5
	Cheam	.....	7	7
	Chilliwack, East	.....	3	3
	Fairfield Island	.....	3	3
	Lotbiniere	.....	4	4
	Robertson	.....	7	7
	Rosedale	7	.....	7
	Sardis	13	.....	13
	Sumas	.....	1	1
	Popcum	.....	2	2
	Coqualeetza Inst. Private	.....	6	6
Clearwater	Clearwater	.....	4	4
	Little Fort	.....	1	1
	Raft River	.....	2	2
	Vavenby	.....	1	1
Clinton	Clinton	.....	2	2
	Green Lake	.....	1	1
Coalmont	Blakeburn	.....	1	1
	Coalmont	.....	2	2
	Tulameen	.....	1	1
Colwood	Albert Head	.....	2	2
	Colwood	.....	3	3
	Langford	.....	5	5
	Metchosin	.....	2	2
	William Head (Federal)	.....	1	1
Courtenay	Courtenay	18	2	20
	Comox	.....	1	1
	Grantham	.....	1	1
	Lazo	.....	2	2
	Merville	.....	2	2
	Nob Hill	.....	1	1
	Oyster River	.....	1	1
	Royston	.....	1	1
Cowichan, North	Chemainus	.....	4	4
	Crofton	.....	2	2
	Oyster	.....	5	5
	Galiano, North	.....	1	1
Cranbrook	Cranbrook	50	8	58
	Bull River Bridge	.....	4	4
	Fort Steele	.....	2	2
	Jaffray	.....	2	2
	Lumberton	.....	1	1
	Moyase	.....	1	1
	Wycliffe	.....	6	6
Creston	Camp Lister	.....	3	3
	Canyon City	.....	6	6
	Creston	10	3	13
	Erickson	.....	7	7
	Huscroft	.....	2	2
	Kitchener	.....	4	4
	Wynndel	.....	3	3
Cumberland	Cumberland	17	4	21
Denman Island	Denman Island	.....	2	2
	Hornby Island	.....	1	1
Dewdney	Deroche	.....	1	1
	Dewdney	.....	4	4
	Hatzic Prairie	.....	2	2
	Nicomen Island	.....	1	1

NUMBER OF SUCCESSFUL CANDIDATES AT EACH SCHOOL—*Continued.*

Centre.	School.	Promoted on Recommendation.	Promoted on Examination.	Total.
Duncan	Duncan	22	6	28
	Bench	.....	1	1
	Cobble Hill	.....	5	5
	Cowichan Lake	.....	3	3
	Cowichan Station	.....	1	1
	Glenora	.....	1	1
	Shawnigan Lake	.....	3	3
	Sylvania	.....	1	1
Edgewood	Needles	.....	1	1
Elphinstone Bay	Elphinstone Bay	.....	3	3
	Roberts Creek, East	.....	1	1
Enderby	Enderby	.....	9	9
	Ashton Creek	.....	1	1
	Deep Creek	.....	2	2
	Enderby, North	.....	1	1
	Grindrod	.....	1	1
	Hillcrest	.....	1	1
	Springbend	.....	4	4
Esquimalt	Lampson Street	.....	40	40
Fernie	Fernie	59	1	60
	Coal Creek	.....	2	2
	Hosmer	.....	3	3
	Holy Family Private	.....	3	3
Fruitvale	Fruitvale	.....	5	5
	Park's Siding	.....	1	1
Ganges Harbour	Ganges Harbour	.....	2	2
Golden	Field	.....	1	1
	Golden	13	.....	13
	Horse Creek	.....	1	1
	McMurdo	.....	1	1
	Parson	.....	1	1
Granby Bay	Granby Bay	13	6	19
Grand Forks	Grand Forks	27	4	31
	Brown Creek	.....	1	1
	Cascade	.....	1	1
	Fife	.....	1	1
Granite Bay	Granite Bay	.....	2	2
Gray Creek	Crawford	.....	1	1
Greenwood	Greenwood	.....	4	4
	Christian Valley	.....	1	1
	Rhone	.....	1	1
	Westbridge	.....	1	1
Hazelton	Hazelton	.....	1	1
	New Hazelton	.....	1	1
Hedley	Hedley	.....	5	5
Hope	Hope	.....	5	5
	St Elmo	.....	1	1
	Yale	.....	2	2
Howe Sound	Bowen Island	.....	1	1
	Howe Sound	.....	6	6
Invermere	Athalmer-Invermere	.....	1	1
	Wilmer	.....	2	2
	Windermere	.....	1	1
Ioco	Ioco	.....	8	8
	Sunnyside	.....	1	1
Kamloops	Lloyd George	22	3	25
	Stuart Wood	40	13	53
	Adelphi	.....	1	1
	Chinook Cove	.....	1	1
	Criss Creek	.....	1	1
	Fruitlands	.....	6	6
	Grande Prairie	.....	3	3
	Heffley Creek, Upper	.....	1	1

NUMBER OF SUCCESSFUL CANDIDATES AT EACH SCHOOL—*Continued.*

Centre.	School.	Promoted on Recommendation.	Promoted on Examination.	Total.
Kamloops	Long Lake	.....	3	3
	Martin Prairie	.....	1	1
	Monte Creek	.....	1	1
	Squam Bay	.....	1	1
	Tranquille	.....	1	1
	Trapp Lake	.....	1	1
	St. Ann's Private	.....	6	6
	Zetland Private	.....	3	3
Kaslo	Kaslo	13	2	15
	Ainsworth	.....	1	1
	Argenta	.....	2	2
	Riondel	.....	1	1
	Shutty Bench	.....	1	1
Kelowna	Kelowna	2	34	36
	Okanagan	.....	3	3
	South Okanagan	.....	1	1
Keremeos	Cawston	.....	2	2
	Keremeos	.....	8	8
Kimberley	Kimberley	20	1	21
	Sullivan Hill	.....	1	1
Ladner Delta	Ladner	23	1	24
	Mosher Siding	.....	2	2
	Trenant	.....	6	6
Ladysmith	Ladysmith	14	5	19
	Diamond Crossing	.....	5	5
	Extension	.....	8	8
	Oyster, North	.....	4	4
	Our Lady of Perpetual Help Private	.....	2	2
Lang Bay	Lang Bay	.....	2	2
	Myrtle Point	.....	1	1
Langley	Aldergrove	.....	2	2
	Belmont	.....	1	1
	County Line	.....	4	4
	Glenwood	.....	1	1
	Langley Fort	.....	5	5
	Langley Prairie	.....	10	10
	Langley, West	.....	2	2
	Milner	.....	12	12
	Murrayville	.....	11	11
	Otter	.....	1	1
	South Otter	.....	1	1
	Springbrook	.....	2	2
Lasqueti Island	False Bay	.....	3	3
Lillooet	Lillooet	.....	5	5
Lumby	Lumby	.....	2	2
Lund	Lund	.....	1	1
Malcolm Island	Kaleva	.....	1	1
	Malcolm Island	.....	1	1
	Port Hardy	.....	1	1
Maple Ridge	Hammond	.....	5	5
	Haney	22	.....	22
	Maple Ridge	.....	8	8
Mara	Mara	.....	4	4
Masset	Masset	.....	3	3
Matsqui	Clayburn	.....	3	3
	Matsqui	.....	8	8
	Ridgedale	.....	3	3
Merritt	Merritt	.....	32	32
	Brookmere	.....	1	1
Michel	Corbin	.....	1	1
	Elk Bridge	.....	1	1
	Michel	.....	3	3
	New Michel	.....	7	7

NUMBER OF SUCCESSFUL CANDIDATES AT EACH SCHOOL—*Continued.*

Centre.	School.	Promoted on Recommendation.	Promoted on Examination.	Total.
Mission	Mission	28	2	30
	Silver Hill	.....	2	2
Mount Lehman, Matsqui	Mount Lehman	.....	3	3
	Peardonville	.....	1	1
McBride	Bend	.....	1	1
	Dome Creek	.....	1	1
	McBride	.....	1	1
	Correspondence School, Educ. Dept.	.....	1	1
Nakusp	Box Lake	.....	1	1
	Glenbank	.....	3	3
	Nakusp	.....	2	2
Nanaimo	Nanaimo	96	6	102
	Brechin	6	.....	6
	North Cedar	.....	2	2
	South Cedar	.....	3	3
	Chase River	.....	9	9
	South Gabriola	.....	2	2
	Grant Mine	.....	1	1
	Harewood	28	.....	28
	Mountain	.....	3	3
	Nanaimo Bay	.....	2	2
	Northfield	.....	2	2
	Wellington	.....	3	3
	South Wellington	8	1	9
	St Ann's Private	.....	1	1
Naramata	Naramata	.....	4	4
Nelson	Central	63	10	73
	Hume	17	1	18
	Belford	.....	2	2
	Johnson's Landing	.....	1	1
	Passmore	.....	1	1
	Salmo	.....	1	1
	Shoreacres	.....	1	1
	Taghum	.....	1	1
	Willow Point	.....	1	1
	Ymir	.....	2	2
New Denver	New Denver	.....	11	11
	Three Forks	.....	1	1
New Westminster	Central	67	2	69
	Lister-Kelvin	75	1	76
	Richard McBride	47	2	49
	Herbert Spencer	30	1	31
	Trapp Technical	10	.....	10
	Hamilton Road, Burnaby	.....	3	3
	Blue Mountain, Coquitlam	.....	2	2
	Central, Coquitlam	.....	3	3
	Sunbury, Delta	.....	2	2
	Lady of Lourdes Private	.....	1	1
	St. Ann's Private	.....	11	11
	St. Louis Private	.....	3	3
	Private Study	.....	1	1
North Bend	North Bend	.....	5	5
Notch Hill	Blind Bay	.....	2	2
	Lee Creek	.....	1	1
	Magna Bay	.....	1	1
	Notch Hill	.....	1	1
	White Lake	.....	1	1
Oak Bay	Monterey Avenue	33	4	37
	Willows	23	13	36
Ocean Falls	Ocean Falls	12	.....	12
Oliver	Oliver	.....	5	5
Oyama	Oyama	.....	4	4
	Winfield	.....	5	5

NUMBER OF SUCCESSFUL CANDIDATES AT EACH SCHOOL—*Continued.*

Centre.	School.	Promoted on Recommendation.	Promoted on Examination.	Total.
Parksville	Bowser	.....	1	1
	Errington	.....	5	5
	French Creek	.....	2	2
	Nanoose	.....	1	1
	Parksville	.....	5	5
	Red Gap	.....	2	2
Peachland	Peachland	.....	9	9
Pender Harbour	Doriston	.....	1	1
	Irvine's Landing	.....	1	1
Pender Island	Galiano	.....	1	1
	Mayne Island	.....	1	1
Penticton	Penticton	61	3	64
	Kaleden	.....	1	1
	Okanagan Falls	.....	1	1
Point Grey	David Lloyd George	43	8	51
	Edith Cavell	27	4	31
	Kerrisdale	44	8	52
	Lord Kitchener	20	5	25
	Magee	78	6	84
	Prince of Wales	50	10	60
	Queen Mary	59	1	60
	School for Deaf and Blind	3	.....	3
Port Clements	Port Clements	.....	1	1
Port Coquitlam	Central	10	.....	10
	Glen	.....	2	2
	Victoria Drive	.....	2	2
	Pitt Meadows	.....	5	5
	Essondale	.....	1	1
Port Moody	Port Moody	.....	9	9
Port Renfrew	Port Renfrew	.....	1	1
Powell River	Powell River	20	7	27
Prince George	Prince George	30	4	34
	Dome Creek	.....	2	2
	Fort George	.....	2	2
	South Fort George	.....	1	1
	Hutton	.....	1	1
Prince Rupert	Booth Memorial	29	6	35
	Borden Street	18	3	21
	Essington	.....	1	1
	Sunnyside Cannery	.....	1	1
	Annunciation Private	.....	4	4
	Private Study	.....	1	1
Princeton	Allenby	.....	1	1
	Princeton	.....	5	5
	Killarney	.....	1	1
Procter	Balfour	.....	1	1
	Queen's Bay	.....	1	1
	Procter	.....	2	2
Qualicum Beach	Hilliers	.....	2	2
	Qualicum Beach	.....	7	7
Quesnel	Australian	.....	2	2
	Bouchie Lake	.....	1	1
	Quesnel	.....	7	7
	Sister's Creek	.....	2	2
Revelstoke	Revelstoke	47	4	51
	Craigellachie	.....	1	1
	Greenslide	.....	1	1
	Malakwa	.....	1	1
	Mount McPherson	.....	1	1
	Solsqua	.....	2	2
Rock Creek	Anarchist Mountain	.....	1	1
	Ingram Mountain	.....	1	1
	Myncaster	.....	3	3
	Rock Creek	.....	2	2

NUMBER OF SUCCESSFUL CANDIDATES AT EACH SCHOOL—*Continued.*

Centre.	School.	Promoted on Recommendation.	Promoted on Examination.	Total.
Rolla	Doe Creek	.....	2	2
	Rolla	.....	7	7
Rossland	McLean	28	1	29
Ruskin	Ruskin	.....	5	5
Rutland	Rutland	.....	5	5
Saanich	Cedar Hill	.....	13	13
	Cloverdale	.....	7	7
	Craigflower	.....	5	5
	Keating	.....	4	4
	Lake Hill	.....	2	2
	MacKenzie Avenue	.....	7	7
	Prospect Lake	.....	2	2
	Royal Oak	.....	2	2
	Saanichton	.....	1	1
	Saanich, West	.....	5	5
	Strawberryvale	.....	4	4
	Tillicum	.....	16	16
	Tolmie	.....	12	12
	Model	.....	9	9
	James Island	.....	6	6
North Saanich	North Saanich	.....	3	3
Salmon Arm	Salmon Arm	18	4	22
	Broad View	.....	2	2
	Canoe	.....	3	3
	South Canoe	.....	1	1
	Gleneden	.....	1	1
	Larch Hill	.....	2	2
	Mount Ida	.....	2	2
	West Salmon Arm	.....	2	2
	Silver Creek	.....	2	2
Sandspit	Sandspit	.....	4	4
Lower Sayward	Lower Sayward	.....	1	1
Seaford	Seaford	.....	1	1
Sidney	Sidney	.....	5	5
Silverton	Silverton	.....	5	5
Skidegate	Skidegate	.....	1	1
Slocan City	Slocan City	.....	3	3
	Appledale	.....	3	3
Smithers	Smithers	8	6	14
Soda Creek	Soda Creek	.....	2	2
Sooke	Sooke	.....	4	4
	Otter Point	.....	2	2
Squamish	Squamish	.....	4	4
Stewart	Stewart	.....	2	2
	Premier	.....	1	1
Sumas, Upper	Upper Sumas	.....	5	5
	Lindell	.....	1	1
Summerland	Summerland	26	3	29
	Meadow Valley	.....	1	1
Surrey	Anniedale	.....	1	1
	Clayton	.....	1	1
	Cloverdale	.....	11	11
	Colebrook	.....	3	3
	Elgin	.....	4	4
	Hall's Prairie	.....	6	6
	Johnston Road	.....	4	4
	East Kensington	.....	3	3
	Kensington Prairie	.....	4	4
	Newton	.....	3	3
	Port Kells	.....	2	2
	Strawberry Hill	.....	3	3
	Tynehead	.....	2	2
	South Westminster	.....	6	6

NUMBER OF SUCCESSFUL CANDIDATES AT EACH SCHOOL—*Continued.*

Centre.	School.	Promoted on Recommendation.	Promoted on Examination.	Total.
Surrey	White Rock	.....	7	7
	Woodward's Hill	.....	2	2
Swift Creek	Swift Creek	.....	1	1
Telkwa	Telkwa	.....	2	2
Terrace	Dorreen	.....	1	1
	Kitsumgallum	7	.....	7
Thurlow	Thurlow	.....	1	1
Trail	Trail-Tadanac	49	16	65
	Columbia Gardens	.....	1	1
Ucluelet	Tofino	.....	1	1
	Ucluelet	.....	3	3
	Private Study	.....	1	1
Union Bay	Union Bay	.....	2	2
Vananda	Vananda	.....	3	3
Vancouver	Aberdeen	41	1	42
	Alexandra	57	2	59
	Bayview	45	3	48
	Beaconsfield	20	2	22
	Central	34	2	36
	Dawson	55	4	59
	Charles Dickens	32	4	36
	Fairview	30	3	33
	Franklin	24	.....	24
	Simon Fraser	45	2	47
	General Gordon	66	1	67
	Grandview	39	2	41
	Grenfell	2	.....	2
	Hastings	69	.....	69
	Henry Hudson	55	2	57
	Kitsilano	45	4	49
	Livingstone	25	9	34
	Model	63	2	65
	Mount Pleasant	58	1	59
	Macdonald	18	4	22
	Lord Nelson	60	7	67
	Florence Nightingale	66	8	74
	Cecil Rhodes	74	1	75
	Lord Roberts	81	2	83
	Laura Secord	44	2	46
	Seymour	44	.....	44
	Strathcona	64	1	65
	Lord Tennyson	72	11	83
	Open Air	1	.....	1
	Powell River	.....	1	1
	Crofton House Private	.....	1	1
	Eudistine Private	.....	5	5
	Holy Rosary Private	.....	22	22
	Matriculation Correspondence Private	.....	1	1
	St Anthony's College Private	.....	2	2
	St. Augustine's Private	.....	12	12
	St. Patrick's Private	.....	22	22
Vancouver, North	Lonsdale	13	21	34
	Queen Mary	43	3	46
	Ridgeway	47	2	49
	Capilano	3	.....	3
	Lynn Valley	24	1	25
	North Star	15	.....	15
	St. Edmund's Private	.....	3	3
	Private Study	.....	1	1
Vancouver, South	General Brock	27	.....	27
	Carleton	101	1	102
	Gordon	39	7	46
	Walter Moberley	39	7	46
	Richard McBride	47	11	58

NUMBER OF SUCCESSFUL CANDIDATES AT EACH SCHOOL—*Continued.*

Centre.	School.	Promoted on Recommendation.	Promoted on Examination.	Total.
Vancouver, South	Sir A. MacKenzie	51	4	55
	Norquay	37	4	41
	Secord	25	.....	25
	Lord Selkirk	84	2	86
	Sexsmith	16	7	23
	Tecumseh	59	9	68
	Van Horne	34	.....	34
	General Wolfe	52	3	55
	St. Joseph's Private	.....	3	3
Vancouver, West	Pauline Johnson	35	.....	35
Vanderhoof	Finmoore	.....	1	1
	Fort Fraser	.....	2	2
	Vanderhoof	.....	4	4
Vernon	Vernon	40	6	46
	Coldstream	.....	1	1
	Lavington	.....	2	2
	Trinity Valley	.....	2	2
	St. Michael's Private	.....	1	1
Victoria	Boys' Central	27	9	36
	Sir James Douglas	32	4	36
	Girls' Central	34	19	53
	George Jay	58	8	66
	Margaret Jenkins	23	12	35
	North Ward	36	2	38
	Oaklands	44	2	46
	Quadra	18	4	22
	South Park	37	10	47
	West	27	.....	27
	St. Louis College, Private	.....	2	2
	St. Margaret's Private	.....	2	2
	Private Study	.....	6	6
Waldo	Baynes Lake	.....	2	2
	Waldo	.....	5	5
	Private Study	.....	1	1
Webster's Corner	Webster's Corner	.....	7	7
William's Lake	Big Lake	.....	1	1
	Lac la Hache	.....	1	1
	Williams Lake	.....	1	1
Wistaria	Streatham	.....	1	1
Woodfibre	Woodfibre	.....	4	4
Yahk	Yahk	.....	4	4
Totals, June, 1926		4,468	1,743	6,211
Totals, June, 1925		2,130	3,568	5,698

APPENDIX B.

HIGH SCHOOL ENTRANCE EXAMINATION, JUNE, 1926.

ARITHMETIC. (Time, 3 hours.)

PART 1.

[NOTE.—*The questions in Part 1 can be solved mentally, but candidates who find any of the problems too difficult to perform mentally may work them out with pen and ink. The answer to each question must be placed on the blank to the right of the question.*]

	Answer.	Value.
1. How many yards are in 1,269 feet?	.....	1
2. How many feet in 1,269 yards?	.....	1
3. If a man walks south from his home 13 miles and then walks north 7¼ miles, how far is he from his home?	.....	1
4. $13\frac{4}{5} \times 7 =$	.....	1
5. What simple fraction is equal to $\frac{8\frac{3}{4}}{9}$?	.....	1
6. What simple fraction is equal to $\frac{7}{10\frac{3}{4}}$?	.....	1
7. $7\frac{1}{4} \div 3 =$	.....	1
8. Arrange in order of magnitude: 3.7, .275, and 2.1	.....	1
9. $.2 \times .1 \times 3 =$	.....	1
10. $4 \div .05 =$	.....	1
11. $7.63 \times 1000 =$	.....	1
12. $7.63 \div 1000 =$	.....	1
13. The least common multiple of 8, 15, and 40 is	.....	1
14. The highest common factor of 18, 45, and 63 is	.....	1
15. Find the cost of 8 pencils at 75 cents a dozen.	.....	1
16. What decimal fraction is equivalent to 9½%?	.....	1
17. What common fraction is equivalent to 33⅓%?	.....	1
18. 7% of $85 =	.....	1
19. Find the cubic contents of a brick 9 inches long, 5 inches wide, and 4 inches thick.	.....	1
20. A room is 20 feet long, 15 feet wide, and 10 feet high. Find		
(*a.*) The perimeter of the room,	.....	1
(*b.*) The area of the walls,	.....	1
(*c.*) The area of the ceiling,	.....	1
(*d.*) How many strips of paper 18 inches wide, laid vertically, will be required to paper an end wall of the room.	.....	1
21. How many square yards are in a path 4 yards wide and 2 rods long?	.....	2
22. How many acres are in a rectangular field 20 chains long and 7 chains wide?	.....	2
23. What is a piece of scantling 20 feet long, 9 inches wide, and 2 inches thick worth at 4 cents a board-foot?	.....	2

	Answer.	Value.
24. My account for gas and coal for December was $13. If I was allowed 5% discount, find the amount I had to pay to settle the account.	.....	2
25. If coal is bought at $8 a ton and sold at a gain of 40%, find the selling price per ton.	.....	2
26. A furniture dealer made a profit of $8 on a chair which he sold at a gain of 40%. At what price did he buy the chair?	.....	2
27. I bought a piano on February 5, 1925, and gave in part payment a promissory note due in 9 months. On what date was the note legally due?	.....	2
28. What premium must a person pay to insure his life for $4,500 at $30 a thousand?	.....	2
29. What premium must a person pay to insure his house for $4,500 at 70c. a hundred?	.....	2
30. If a boy can run 8 feet in ⅖ of a second, how long at that rate will it take him to run 100 yards?	.....	3
31. My property in 1925 was assessed at $3,000. If the tax rate was 23 mills on the dollar, what was the amount of taxes on the property?	.....	3
32. A, B, and C bought a house which they rented for $360 a year. If A paid $1,200, B $1,000, and C $800 towards the cost of the house, what sum is B entitled to as his share of the rent for a year?	.....	3

PART 2 (WRITTEN WORK).

Value.

8 1. Find the cost of a pile of wood 42 feet 8 inches long, 12 feet wide, and 7 feet 9 inches high at $7.50 a cord.

8 2. A piece of cloth 7 decametres long was sold in Paris at 39 francs a metre. Find the value of the piece of cloth in Canadian currency when 1 franc is worth 3.54 cents.

12 3. The owner of a square field containing 40 acres put a 3-strand wire fence around it. What did the wire cost at 4½c. a foot?

12 4. A cylinder has a diameter of 28 inches and a height of 39 inches. Find the number of gallons of water it will hold, if a gallon of water occupies approximately 277.274 cubic inches of space (give answer to 2 places of decimals).

10 5. On June 30, 1923, H. Miller deposited in a Savings Bank $2,800 on which interest at 4% per annum was to be added to the principal every 6 months. How much money was to Mr. Miller's credit at the bank at the end of two years?

DRAWING. (Time, 2¼ hours.)

18 (*a.*) Select three examples of the following from your drawings:—

(1.) An example of nature drawing.

(2.) An example of colour-work (design).

(3.) An example of shading in pencil.

25 (*b.*) Freehand object-drawing. Draw *one* of the following:—

(1.) Any object that will bring in the ellipse and a handle.

(2.) A match box partly open.

(3.) A group of two models, composed of a square prism and a cylinder, with shading.

Value.

30 (*c.*) Draw any simple scroll, and put the word "Excelsior" on it.

Or

Copy the following in a rectangle 5" by 7":—

The cuckoo comes in April,
Stops all the month of May,
Sings a song in midsummer,
And then he goes away.

27 (*d.*) Make a sketch of any design you have studied during the year, and if time permits, complete a portion of the design.

GEOGRAPHY. (Time, 2¼ hours.)

57 1. In each blank, fill in the word or words needed to make the statement complete.

(*a.*) In the region between the trade-winds the prevalent direction of the air is..... This region encircling the earth is called the.....

In a region where the prevailing winds are from the water to the land, summers will be.....and winters.....

(*b.*) The greater part of the world's supply of coffee is grown in.....
The country which produces the greatest quantity of wool is.....
The country which produces the greatest quantity of silk is.....
The country which produces the greatest quantity of cotton is.....
The country which produces the greatest quantity of petroleum is.....

(*c.*) The V-shaped Highland stretching in a great horse-shoe around Hudson Bay and comprising more than half of the surface of Canada is called..... This portion of Canada has supplied the world with the greatest mines in existence of..... and.....

(*d.*) The greatest commercial city of the United States is....., situated at the mouth of the.....River.
The most important city in the southern part of the United States is....., situated on the.....
The largest island of the West Indies is..... It is under the protection of..... The capital is..... Its two leading exports are..... and.....

(*e.*) The Atlantic terminus of the Trans-Andean Railway in South America is..... The Pacific terminus is.....
The most progressive country in South America is.....
Its two leading industries are.....and.....
The largest country in South America is.....
Its capital is.....

(*f.*) The two chief minerals of Great Britain are.....and.....
Great Britain is the greatest manufacturing country in the world. Manchester is the centre of the.....industry. Leeds is the centre of the.....industry. Birmingham is the centre of the.....industry.
The greatest ship-building centre in the world is at..... on the river.....

(*g.*) The capital of British India is.....
The largest city in India is....., situated at the mouth of the.....

Value.

The greatest sea-port on the West Coast of India is.....

Two important exports of India are.....and.....

(*h.*) The wealth of South Africa depends above all on its..... industry. From South Africa comes almost half of the world's output of .....and practically the whole of the supply of.....

.. The largest city in South Africa is....., which is in the centre of the.....district, in the.....

(*i.*) ....., situated in the....., has been selected as the federal capital of Australia.

A dairy product shipped in large quantities from Australia to the British market is.....

The largest city in Australia is....., in the state of.....

New Zealand has a cooler climate than Australia on account of..... ..... and.....

The capital of New Zealand is.....and the largest city is....., situated on.....Island.

11 2. Describe briefly either Siberia or China under the following headings:—

(*a.*) Surface and drainage.

(*b.*) Climate.

(*c.*) Principal products and exports.

(*d.*) Cities.

32 3. On the accompanying map of Canada show and name the following:—

(*a.*) The 49th and the 60th parallels of latitude and the 120th meridian.

(*b.*) The following river systems: (1) St. Lawrence; (2) Nelson-Saskatchewan; (3) Fraser; (4) Mackenzie.

(*c.*) The provinces with their capital cities.

(*d.*) The cities of Vancouver, Ottawa, Montreal, Nanaimo, Kelowna, and New Westminster.

(*e.*) The branches of the Canadian National Railway in British Columbia.

(*f.*) By printing neatly the name of each product in the proper place on the map, indicate the localities where the following articles are the chief products (two localities for each product): (1) Wheat; (2) Fruit; (3) Fish; (4) Lumber; (5) Coal.

GRAMMAR AND COMPOSITION. (Time, 2½ hours.)

Value.

21 1. He that imagines he hath knowledge enough hath none.

When the spur touched him the horse sprang forward throwing the rider heavily to the ground.

He who from zone to zone
Guides through the boundless sky thy certain flight,
In the long way that I must tread alone,
Will lead my steps aright.

I little thought what wealth the show to me had brought.

Before the sun rose Sir Victor had gathered his men around him and was ready for the battle.

Give the subordinate clauses in the above sentences and state the kind and the relation of each clause.

8 2. London is the great *mart* of the world, to *which* the *best* and richest products are brought from every land and clime, so that, *if* you have put money in your purse, you may command every object of utility or *fancy* which *grows* or is made anywhere without *going beyond* the city.

State the "part of speech" and the "relation" of each word given in italics in the above sentence.

21 3. (*a.*) Give the voice, tense, and class (transitive or intransitive) of the verb phrases in the following sentences:—

(*a.*) We shall now continue the story.

(*b.*) New methods have been adopted in recent years.

(*c.*) He has been working in the garden.

(*d.*) The greater part of the west coast is covered with forests.

(*e.*) He is leaving for his home in Alberta.

(*f.*) They had passed the village.

(*b.*) The plural

of *radius* is.....,
of *memorandum* is.....,
of *valley* is.....,
of *country* is.....,
of *sheaf* is.....,
of *oasis* is.....,

(*c.*) The masculine

of *widow* is.....,
of *goose* is.....,
of *lass* is.....,
of *witch* is.....,
of *niece* is.....,

(*d.*) The comparative degree

of *worst* is.....,
of *hungry* is.....,
of *far* is.....,
of *most severely* is.....,
of *least likely* is.....,

12 4. Make the necessary correction in each of the following sentences:—

It don't seem possible.
It was me who came to see you.
I met a man who I had not seen for years.
I learned him to play golf.
He asked we boys to help him.
Father sent Walter and I to the store.

Value.

He takes everything too serious.
Have you ever saw his picture?
She likes to set by the window and read.
If one tries they can succeed.
The box of pens have disappeared.
The water in the lake is raising fast.

8 5. "DEAR SIR,—I regret to inform you, Mr. Brown, that your son, Fred, was seriously injured while playing football on the campus this afternoon. Dr. Wilson says you had better come at once as an operation is necessary."

HARRY JOHNSTON.

(*a.*) Reduce the body of the above letter to a telegram of not more than ten words.

(*b.*) Combine the following short statements into one well-formed sentence:—

He was a work-horse. His colour was black. One day he was going up a hill. He was pulling a load. The load was heavy. He slipped and fell. One of his legs was broken.

12 6. (*a.*) In the following sentences, fill in all proper punctuation, capitals, and abbreviations, making corrections as in the example:—

O B S ,

Example: old bill snipe carries a rabbits foot.

smiths office is at 372 columbia street vancouver.
j d burns and w r jones senior are keen aggressive resourceful business men
at dinner were mistress johnson and reverend doctor williams
here said he is this the book you wished

(*b.*) The following advertisement appeared in a Vancouver newspaper:—

WANTED—Ambitious young man or woman for position as book-keeper in rapidly growing business. No experience necessary but first-class credentials as to integrity and ability are required. Progress Mfg. Co., 395 Princess St., Victoria.

Write an application for the position.

18 7. Write a story of about 20 lines on any *one* of the following topics:—

The Happiest Day I Can Remember.
Saved by a Dog.
A Camping Trip.

PENMANSHIP AND DICTATION AND SPELLING. (Time, 1½ hours.)

(25 marks for Penmanship and 75 marks for Dictation and Spelling.)

[NOTE.—*The Supervisor shall read Sections A and B to the candidates three times—the first time to enable them to gather the meaning; the second time, slowly and clearly in subsections as marked by the bars, allowing all the candidates sufficient time to write the words; and the third time for review. He should repeat words or phrases, when necessary, in order that every candidate may hear distinctly. Punctuation marks should not be dictated. Candidates are not permitted to rewrite the passages.*]

16 A. *Strawberry Picking.*

When the fruit is ripe | large numbers of women | and boys and girls | journey to the fruit farms | to do the picking. | "How jolly," you exclaim, | "to do nothing | but pick beautiful, | ripe strawberries | all day long!" | But | it is not | quite so jolly a task | as it appears, | in spite of the fact | that the farmer | allows pickers | to eat as much fruit | as they like. |

25 B. It frequently occurs | that it is necessary | for the superintendent | and the board of education | to give the public | detailed and specific information | concerning needed enlargements, | greater financial support for the schools, | etc. For

Value.

example, | our larger cities | are all feeling the need | for increased revenues | for permanent improvements | to the school plant. | School populations are increasing, | and the consequent demands | on our public school facilities | are likewise increasing. | This necessitates an educational campaign, | and this in turn | demands a special kind | of school report.|

14 C. (*a.*) An Atlantic current | bathes the coasts | of Great Britain and Ireland | in warm water.|

(*b.*) A curious but solemn ceremony | will precede the luncheon | on the eighth floor.|

(*c.*) An amendment to the Act | will permit | the further development | of the property.|

(*d.*) By virtue of his office, | Caesar organized | several corps of cavalry | for his campaign.|

(*e.*) He endeavoured to persuade his associates | to release the traitor.|

(*f.*) By this scheme | we shall be relieved | of immediate responsibility.|

(*g.*) Exercises develop | the muscles of the body.|

20 D.

shrub	prejudice
mourn (lament)	reconcile
avoid	courteous
marriage	leisure
relieve	museum
deceive	suffice
achieve	conceive
sceptre	lease
haughty	incense
parallel	cashier
metre	noticeable
thermometer	auxiliary
paradise	suffrage
fiery	gorgeous
dungeon	excess
chauffeur (sho' fur)	symbol
monstrous	separator
prairie	alcohol
gymnasium	burial
sieve	athletic

APPENDIX C.

HIGH SCHOOL EXAMINATION, JUNE, 1926.

Grade IX.

ALGEBRA. (Time, 2 hours.)

Value.

16 1. (*a.*) Multiply $3x^4y - 5x^3y^2 + x^2y^3 - y^5$ by $x^3 - 3xy^2 - y^3$.

(*b.*) Divide $3x^6 + 9x^5y - 5x^4y^2 - 29x^3y^3 + 3x^2y^4 + 25xy^5 - 3y^6$ by $x^3 + 3x^2y - 5y^3$.

21 2. Simplify each of the following expressions :—

(*a.*) $\{4a - [2a - (3a - 2b) + 4a] - (4b - 6)\}$.

(*b.*) $(k+7)(k-5) - (k-7)(k+5)$.

(*c.*) $\dfrac{4x^4y - 8x^6y^2 + 12x^8y^4}{4x^4y}$.

(*d.*) $(a^2)(a^3) + (a^2)^3 + (a^3)^2$.

(*e.*) $\sqrt{16p^{16}} - \sqrt[3]{27p^{27}}$.

(*f.*) $\dfrac{2x^2y}{3yz} \times \dfrac{5z^2x}{7xy^2} \div \dfrac{21x^2y^3z^2}{40xy^2z}$.

15 3. Resolve into factors :—

(*a.*) $x^2 + 10cd + 5cx + 2dx$.

(*b.*) $6 + 16x - 6x^2$.

(*c.*) $a^4b^4 + 13a^2b^2 - 300$.

9 4. For what value of n are the two quantities $\{\frac{3}{2}(5n-7) - \frac{2}{3}(4n-3)\}$ and $\frac{1}{6}(27n - 50)$ equal?

18 5. Solve the equations :—

(*a.*) $\dfrac{6x+1}{4} - \dfrac{6x-1}{2} = \dfrac{5}{6}(2x+5) - 5$.

(*b.*) $3x + 5\frac{1}{2}y = 36$
$5x + 3\frac{1}{2}y = 26$.

10 6. Write down the highest common factor and the lowest common multiple of :—

(*a.*) $3a^5b^4c$ and $6a^3b^5d^2$.

(*b.*) $6a^3b^5d^2$ and $15b^2d^7c^3$.

(*c.*) $15b^2d^7c^3$ and $3a^5b^4c$.

(*d.*) $3a^5b^4c$, $6a^3b^5d^2$ and $15b^2d^7c^3$.

11 7. A has \$10 less than B. B has \$4 less than three times the amount C has. C has \$30 less than A. How much has each?

ARITHMETIC. (Time, 2 hours.)

[*All work must be shown.*]

Value.

6 1. Express $\frac{2\frac{4}{5} \times \frac{3}{8} \div \frac{3}{4}}{1\frac{1}{6} \div \frac{13}{16}}$ as a decimal.

8 2. A cistern is 4 m. long, 24 dm. wide, and 80 cm. deep. Find its capacity in litres.

10 3. (*a.*) A boy in the manual training class painted the surfaces of a 3-inch cube. How many square inches did he paint?

(*b.*) He then cut the cube into inch cubes.

(*k.*) How many of these inch cubes were painted on three sides?

(*l.*) How many of these inch cubes were painted on two sides?

(*m.*) How many of these inch cubes were painted on one side?

(*n.*) How many of these inch cubes were not painted at all?

10 4. A grocer bought two sorts of tea at 55 cents and 61⅔ cents per pound respectively. He mixed them so as to have 3 pounds of the dearer for every pound of the cheaper sort and sold the mixture at 80 cents per pound. What per cent. did he gain?

10 5. The simple interest on a sum of money for 2 years at 5% is $84. What is the compound interest on the same sum for the same time at the same rate?

14 6. A building is assessed for ⅘ of its value, and the rate of taxation is 17½ mills on the dollar. What will be the amount of the tax, if it costs $52.50 to insure the building for ⅔ of its value at 1¾%?

14 7. Mr. Smith bought a lot for $1,200 and built a 4-apartment house upon it for $4,800. The first year after it was built he rented one apartment for a year at $23 a month, one for 8 months at $20 a month, one for a year at $20 a month, and one for 10 months at $23 a month. He paid $75 for taxes and $69 for water and insurance. What rate per cent. did he make on his investment?

14 8. What annual income is derived from investing $4,147 in 3% stock at 72½?

14 9. $500.00. VICTORIA, March 19th, 1926.

Ninety days after date I promise to pay to the order of John Brown the sum of Five Hundred Dollars with interest at 7% per annum, value received.

THOMAS SMITH.

This note was discounted at the bank on April 15, at 8%. Find the proceeds.

DRAWING. (Time, 2 hours.)

(a.) Selections from Drawings.

[*The time taken to collect these drawings is* not *to be deducted from the two hours allowed for this paper.*]

Select the following from the drawings you have made during the past year and write your distinguishing number at the top right-hand corner of each. Before beginning your drawing give these to the Examiner.

6 1. An example of nature-drawing in colour.

6 2. An example of shaded object-drawing.

6 3. An example of lettering.

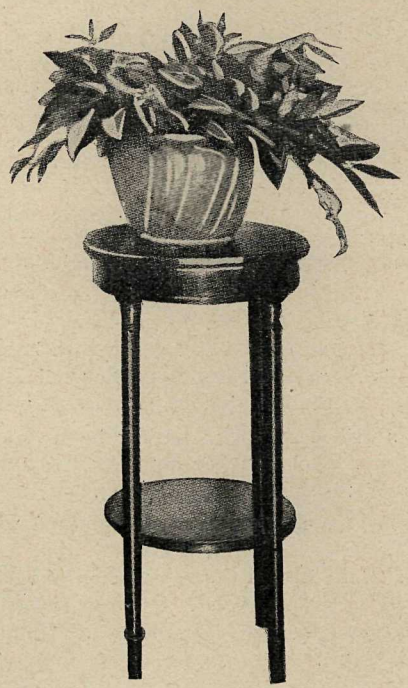
6 4. An example of ornamental design, coloured so as to illustrate the principle of analogous harmony.

6 5. An example of ornamental design, coloured so as to illustrate the principle of split-complementary harmony.

Value.

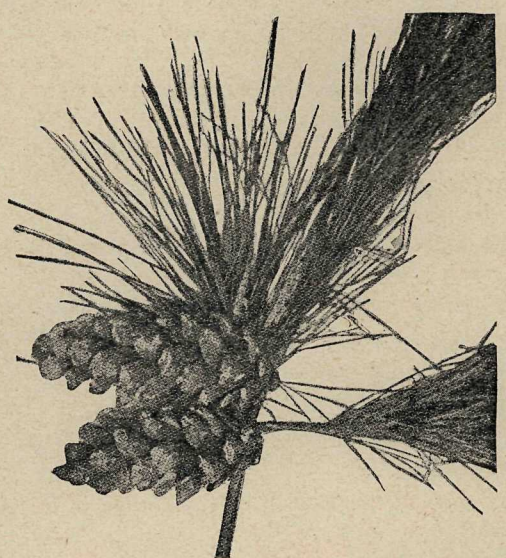
35 *(b.) Object-drawing.*

Make a shaded pencil drawing of the table and bowl, shown in the cut below (omitting the foliage so as to show the bowl empty), as they would appear to a spectator about 4 feet to the left of the position from which they are seen in this picture.



35 *(c.) Design.*

From the picture of pine-cones and needles, given below, derive some simple decorative forms and use these to enrich a square 7 inches wide. Name the article on which your design might be used, the material of which it would be made, and the manner of applying the ornament. Also write on the design the colours you would use in the various spaces.



ENGLISH COMPOSITION. (Time, 2 hours.)

Value.

6 1. Choose from Group 2 the appropriate predicate for each of the subjects in Group 1:—

Group 1.	Group 2.
A poor workman	heeds no counsel.
Cheerful looks	considers his beast.
An angry man	attack the idle.
A merciful man	do not always bear the most fruit.
The biggest trees	never has good tools.
All temptations	make every dish a feast.

12 2. Name and illustrate the chief uses of:—

(*a.*) Capital letters.
(*b.*) The hyphen.
(*c.*) The apostrophe.

8 3. Rewrite the following, inserting the necessary capitals and punctuation marks:—

what is time
I asked an aged man a man of cares
wrinkled and curved and white with hoary hairs
time is the warp of life he said oh tell
the young the fair the gay to weave it well

14 4. Write a letter to a friend inviting him (or her) to spend a week of the summer vacation with you. Tell him (or her) what you will do to make the visit an agreeable one. Write the envelope address.

60 5. Write a composition of not more than two hundred words on *one* of the following subjects:—

(1.) The Poem I Like Best in *Narrative English Poems.*
(2.) A Devonshire Farm. (Based on *Lorna Doone.*)
(3.) David Balfour's Escape from the Sea. (*Kidnapped.*)
(4.) A Football Game.

ENGLISH LITERATURE. (Time, 2 hours.)

10 1. Quote ten consecutive lines from any poem studied during the year.

8 2. (*a.*) Name four Canadian writers who have contributed poems assigned for study for Grade IX. Literature. In each case name a poem which the author has written.

4 (*b.*) What two American poets have contributed poems? Give the name of the poem written by each.

12 3. Give in your own words the story of one of the following:—

(*a.*) *The Prisoner of Chillon.*
(*b.*) *The Highwayman.*

12 4. What are the characteristics of the Ballad as revealed in the poems which you have studied? Give illustrative quotations.

12 5. Give in a few sentences the central theme of any *three* of the following poems:—

(*a.*) *The Red Fisherman.*
(*b.*) *The Battle of Blenheim.*
(*c.*) *Brignall Banks.*
(*d.*) *Christmas at Sea.*
(*e.*) *The Castaway.*

10 6. Depict the character of the Woman in *The Italian in England* as she is revealed in the poem.

Value.

16 7. Write a short account, about a page in length, of *one* of the following:—

(*a.*) The Kidnapping of David Balfour.

(*b.*) The Flight in the Heather.

(*c.*) David Balfour's First Visit to his Uncle Ebenezer.

16 8. Write briefly on *one* of the following:—

(*a.*) The Counsellor's Visit to the Ridd Farm.

(*b.*) John Ridd at London.

(*c.*) The Character of John Ridd.

(*d.*) The Visit of John Ridd's Mother to Doone Valley.

FRENCH. (Time, 2 hours.)

10 1. Write the opposites of the following expressions: mauvais, loin, je m'assieds, grand, nous ouvrons, peu, vous montez, le jour, en retard, il va.

10 2. (*a.*) Put into the plural:—

Il se lève, il va au tableau noir, il prend la craie et il écrit une phrase. Tu peux copier cette phrase. Puis il finit le devoir.

10 (*b.*) Put into the singular:—

Nous regardons par les fenêtres, et nous voyons devant nous de vieux arbres. Les enfants jouent quelquefois sous ces arbres.

5 3. (*a.*) Put the adjectives of Column A with the nouns of Column B:—

A.	B.
(1.) une feuille mince	bras
(2.) sa robe bleue	yeux
(3.) votre gros gâteau	pommes
(4.) le livre épais	glace
(5.) ce bel escalier	soleil

6 (*b.*) Put into French:—

(1.) My pen is not as long as your pencil.

(2.) Here are the prettiest flowers.

(3.) Mary is younger than her brother.

5 (*c.*) Put into French:—

(1.) Several eggs.

(2.) The twenty-first lesson.

(3.) A hundred sheep.

(4.) Enough tea.

(5.) All the horses.

8 4. Put the bracketed infinitives into the correct forms:—

(*a.*) Je (finir) ma leçon.

(*b.*) Elle (descendre) dans le jardin.

(*c.*) (Regarder) tu dans ta salle de classe?

(*d.*) (Etre) à la maison à dix heures!

(*e.*) Je (s'appeler) Marie.

(*f.*) J' (entendre) la sonnette.

(*g.*) Vous (manger) votre déjeuner.

(*h.*) Tu (avoir) du pain.

Value.

10 5. Complete the following sentences by filling in the spaces with suitable expressions:—

(*a.*) Au printemps il fait ——.

(*b.*) Je ne peux pas lever la grande table parceque ——.

(*c.*) Voici les abeilles qui nous donnent ——.

(*d.*) Le fils du frère de ma mère est mon ——.

(*e.*) Les Canadiens demeurent ——.

(*f.*) Si je marche trop —— je suis en retard.

(*g.*) Deux choses que je trouve dans ma poche sont: ——.

(*h.*) Je tiens mon crayon ——.

(*i.*) Deux choses que je trouve dans la chambre à coucher sont: ——.

(*j.*) Georges a huit ans, Marie a six ans. Elle est —— âgée que Georges.

12 6. Here is part of a conversation between two school-boys. Make up the remainder by supplying Henry's answers, in complete sentences, to George's questions.

Georges: Où allez vous pour les vacances?
Henri:
Georges: Qu'est ce que vous faites, en été?
Henri:
Georges: Quels animaux y a-t-il à la ferme?
Henri:
Georges: Quand rentrez-vous en ville?
Henri:

24 7. Translate into French:—

(*a.*) How are you? Very well, thank you.

(*b.*) To-day is Tuesday, June the tenth.

(*c.*) It is a quarter to one and we have not much time.

(*d.*) We go from Vancouver to Victoria by boat.

(*e.*) I am going to play ball.

(*f.*) My jersey is made of wool.

(*g.*) Don't you wear a jersey in winter?

(*h.*) We live in British Columbia.

GENERAL SCIENCE. (Time, 2 hours.)

[*Questions are of equal value. Answer* six *only.*]

1. (*a.*) Describe a *mercurial thermometer*, using a diagram to illustrate the corresponding centigrade and Fahrenheit freezing and boiling points.

(*b.*) Convert the following Fahrenheit readings into the equivalent centigrade readings: 10° F., 98° F.; and the following centigrade readings into the equivalent Fahrenheit readings: –10° C., 75° C.

2. (*a.*) What are the essential parts of an *electromagnet?*

(*b.*) Name and describe any common device employing an electromagnet for its operation.

3. (*a.*) "There are only two practical sources of electricity, *primary cells* and *dynamos.*" (Quotation from prescribed text.) Describe the construction and operation of a *primary cell*, illustrating with a diagram.

(*b.*) For what kinds of work are (i) primary cells, (ii) dynamos, especially suited?

(*c.*) What is meant by a "*short*" *circuit?*

4. (*a.*) Clearly explain what is meant by *buoyancy* in liquids and gases.

   (*b.*) A piece of oak wood density of which is .8 gram per cubic centimeter is placed in a vessel of water. What part of its volume will project above the surface of the water?

5. (*a.*) Describe a *hydraulic press*, using a simple diagram to illustrate it.

   (*b.*) If the area of the small piston of a hydraulic press is 36 square inches, and that of the large piston 576 square inches, what pressure will be exerted by the large piston when a weight of 75 pounds is placed upon the small piston?

6. (*a.*) Describe what is meant by (i) *vegetative reproduction*, (ii) *sexual reproduction*, as found in plants, illustrating with an example of each.

   (*b.*) Trace the *development of the frog* from the laying of the egg by the female to its adult stage.

7. (*a.*) Name two *stars* and two *planets* and state *three* respects in which stars and planets differ.

   (*b.*) What instrument is used to determine the *composition* of a star? Explain its use.

8. (*a.*) Clearly explain how plants absorb water from the soil.

   (*b.*) What is meant by *transpiration* in plants? Name and describe, with the aid of a diagram, the special cells in the leaves which regulate the amount of transpiration.

GEOMETRY. (Time, 2½ hours.)

Value.

10 1. Two forts are situated 10 miles apart; the guns of one fort have a range of 7 miles, and those of the other a range of 6 miles. Draw accurately a figure showing the area exposed to the fire of both forts. (Represent 1 mile by ¼ inch.)

15 2. Draw a straight line perpendicular to a given straight line MN from a given point P outside MN. Give the proof of your construction.

15 3. The sum of the angles of a triangle is equal to two right angles. (Letter the triangle P, Q, R.)

15 4. Copy and fill in the following table:—

Angles of Regular Polygons.

No. of Sides.	No. of Degrees in an Interior Angle.	No. of Degrees in an Exterior Angle.
3		
4		
5		
6		
8		
12		

15 5. Through a given point P in a given straight line AB draw a line PQ, making with the given line AB an angle equal to a given angle HKN. Show method of construction, and give proof.

15 6. D is the mid-point of the side BC of a triangle ABC. AD is produced to E so that DE=AD. Prove that EC=BA, and that EC and BA are parallel.

15 7. If the bisector of an angle of a triangle cuts the opposite side at right angles, the triangle must be isosceles.

HISTORY. (Time, 2 hours.)

[*Answer any* five *questions.*]

Value.

20 1. (*a.*) Name some of the chief tools of the Stone Age.
(*b.*) What discovery lifted men from the old to the new Stone Age and in what way did it do this?
(*c.*) How did farming probably begin?
(*d.*) What advantage over those who still remained hunters did farming give to those who added that occupation to hunting?

20 2. (*a.*) What geographical features made the valley of the Nile a good place for the growth of a civilization?
(*b.*) Explain why there was a strong tendency towards unity among the people of the Nile valley.

20 3. Outline briefly the stage of development reached by the Egyptians in farming, trade, manufacture, and architecture.

20 4. Estimate the contribution of the Assyrians and Babylonians to the development of civilization.

20 5. (*a.*) Explain why the Phoenicians became the traders of the world.
(*b.*) Name some of their chief colonies, showing the extensive spread of their colonization.
(*c.*) How did the Hebrew kingdom compare with Egypt or Assyria in power?
(*d.*) What were the chief contributions of the Hebrews to world civilization?

20 6. (*a.*) Explain how geographical influences helped to divide Greece into many states.
(*b.*) What sense of kinship did these states have and what were the chief influences causing this feeling?
(*c.*) Indicate in a general way the extent of the Greek settlements around the Mediterranean.
(*d.*) Name some of the more important colonies.

20 7. (*a.*) Explain clearly why Marathon was one of the world's decisive battles.
(*b.*) Describe the part played by Themistocles in the defeat of Persia.

20 8. (*a.*) Outline briefly the Government of Athens in the time of Pericles.
(*b.*) Explain why Grecian power finally declined.

20 9. (*a.*) Explain clearly the nature of the three classes of Roman citizens, and the difference between "citizens" and "subjects."
(*b.*) How did this organization stand the strain of Hannibal's occupation of Italy?

20 10. (*a.*) Trace the growth of the capitalist class in Rome during the Punic Wars.
(*b.*) Explain how the rise of this class affected the Government and the small land-owners of Italy.

LATIN. (Time, 2 hours.)

18 1. Decline together, (1) in the singular, *bona mulier, communis salus, duplex fossa;* (2) in the plural, *dextrum cornu, longum iter, altus portus.*

6 2. What is (1) a predicate nominative? (2) an appositive? Give examples in Latin.

4 3. What are the four ways of forming the perfect tense active in Latin? Give an example of each.

3 4. What are the principal parts of a verb? Why are they so called?

7 5. Give the principal parts of: *compleo, jubeo, cogo, gero, relinquo, cedo, expello.*

6 6. Write in the plural only, the future indicative active and the future perfect indicative passive of *moneo, rego, audio.*

Value.

7 7. Give the Latin for 9, 18, 27. And give the ordinal numbers from 1st to 4th.

9 8. Compare *facilis, nobilis, malus, multus, prior, superus.*

15 9. Translate into English:—

(1.) Amicitiae causa agros finitimis concedere non dubitabis.

(2.) Ex equis ad pedes desiluerunt.

(3.) Magnis itineribus ad flumen Tamesim hostes contendunt.

(4.) Fines latissimos habere videntur.

(5.) Summa erat omnium rerum inopia.

25 10. Translate into Latin:—

(1.) The previous winter he had collected very many war-ships and very large forces.

(2.) On account of their signal valour they are the freest and noblest of the citizens.

(3.) They will give five hundred hostages.

(4.) An attack was made by four hundred and twenty cavalry.

(5.) When I discover the reason, I shall despatch messengers to the neighbouring states.

Grade X.

AGRICULTURE. (Time, 2 hours.)

[*Questions are of equal value. Answer* six *only.*]

1. What is meant by capillarity? How can the farmer and the gardener affect the capillarity of the soil?
2. Give an example of suitable rotation for a farm or a garden and explain why the land is to be cropped in the order you mention.
3. Mention different species of nitrogen-gathering plants and describe the three kinds which are of greatest economic importance to your own district.
4. Discuss any one farm- or garden-crop to be sold for seed, under the following headings: (*a*) the choice and treatment of land; (*b*) time and method of planting; (*c*) care during the growing season; (*d*) harvesting and preparation for market.
5. How can one minimize loss of organic material and nitrogen in stable manure during storage?
6. Compare the outstanding characteristics of a dairy cow and a beef animal.
7. Prescribe housing and feeding methods for a flock of 100 pullets from November 1st to March 1st.
8. Give the life-history of and suggest effective treatment for two of the most injurious insects in your locality.
9. By what methods can a poultryman select his best breeders?

ALGEBRA. (Time, 2 hours.)

Value.

12 1. Each of the following expressions is a perfect square :—

$25x^4 - 30x^2y + \mathrm{A}$.

$16a^2 - 4\mathrm{B} + 9b^2$.

$7\mathrm{C} + 14m + m^2$.

What is the value of each of the quantities A, B, C?

8 2. (*a.*) From the formula $a = \sqrt{b^2 + c^2}$ find the value of b when $a = 29$ and $c = 20$.

(*b.*) From the formula $\mathrm{S} = ut + \frac{1}{2}at^2$ find the value of u when $\mathrm{S} = 1710$, $t = 10$ and $a = 32.2$.

20 3. Resolve into factors :—

(*a.*) $l^2 - 16(m-n)^2$.

(*b.*) $r^3 + s^3 + r^2s + rs^2$.

(*c.*) $h^2 - k^2 + h + k$.

(*d.*) $a^2b^2 + c^2d^2 - b^2c^2 - a^2d^2$ (four factors).

(*e.*) $x^4 - 3^2x^2 + 2^4$.

20 4. Solve the equations :—

(*a.*) $\dfrac{3x}{4} - \dfrac{6}{17}(x+10) - (x-3) = \dfrac{x-7}{51} - 4\frac{3}{4}$.

(*b.*) $4x - 3y - z = 3$

$y + 2z - 5x = 7$

$z + 3x - 2y = 14$.

10 5. Simplify :—

$$\frac{b^2 - c^2}{ab - b^2 + bc} \times \left\{ 2 - \frac{3b^2 - a^2 + c^2}{b^2 + bc} \right\} \div \frac{(b-c)^2 + a(b-c)}{a^2 - c^2}.$$

10 6. Find the square root of $x^6 - 6x^4 - 22x^3 + 9x^2 + 66x + 121$.

Value.

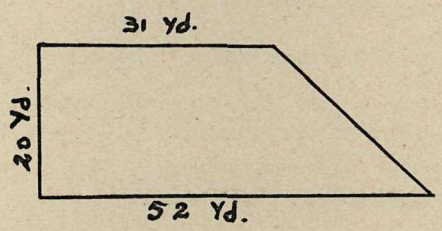
10 7. Find the lowest common multiple of $x^3 - 19x + 30$ and $x^3 + 2x^2 - 29x + 42$.

10 8. A bullet is fired from a rifle at a speed which would average 1,280 feet per second. Six seconds later the marksman hears it strike the target. The velocity of sound is 1,120 feet per second. Find the distance of the marksman from the target.

ARITHMETIC. (Time, 2 hours.)

[*All work must be shown.*]

6 1.



Find the perimeter of this lot.

10 2. In a park is a circular flower-bed 10 ft. in diameter, surrounded by a path 3 ft. wide. How many cubic feet of gravel will be required to cover this path to the depth of 3 inches?

10 3. How many kilograms are there in a bar of gold 10 cm. long, 30 mm. wide, and 25 mm. thick, gold being 19.36 times as heavy as water?

10 4. A farmer's roller is 6 ft. 3 in. long and 2¼ ft. in diameter. Find the area of the surface passed over in making 140 complete revolutions.

16 5. The manufacturer of an article sold to the retail dealer, making a gain of 25%. The retail dealer sold the article, making a gain of 30%. Find the cost to the manufacturer of an article for which the retail dealer charged $91.

16 6. On August 7 a merchant buys hardware to the amount of $850, with discounts of 20% and 10%, and paints to the amount of $1,360, with discounts of 25% and 15%. An extra discount of 5% is to be allowed if the bill be paid within 10 days. How much will settle both accounts on August 15?

16 7. Five men contributed equally the $80,000 necessary to build a business block. The total receipts for the first year were $12,200. The expenses were: Insurance, ¾ of the value of the building at ¾%; taxes, $16.50 per thousand on a valuation of $70,000; janitors' services, $1,380; other expenses, $1,615. What per cent. did each man make on his investment?

16 8. Mr. Brown bought 125 shares of stock at 102⅜, and after receiving one quarterly dividend of 1¾%, sold them at 106⅛. Allowing brokerage, ⅛%, in each case, how much did he gain?

BOTANY. (Time, 2 hours.)

[*All questions are of equal value. Answer* five *only. Illustrate your answers by carefully-drawn diagrams.*]

1. Name, describe, and give examples of five modifications of plant parts for the purpose of food storage.
2. Describe the condition of a deciduous tree during a temperate winter, referring especially to the buds, leaves, leaf-scars, and stored food.
3. Make diagrams to show the structure of a flower belonging to (*a*) the Liliaceæ, (*b*) the Leguminosæ. Choose specific examples and label fully.

4. Name and describe, with examples, the various kinds of fleshy fruits and of dry dehiscent fruits.

5. (*a.*) Explain clearly what is meant by transpiration.

(*b.*) Through what avenues does transpiration take place?

(*c.*) Describe briefly the various modifications in plant structure which help to prevent excessive transpiration.

6. Describe and give examples of the adaptations in seeds which aid in their dispersal.

CHEMISTRY. (Time, 2 hours.)

Value.

10 1. (*a.*) Outline a laboratory method for preparing *hydrogen chloride.* Illustrate with a diagram and write the equation.

5 (*b.*) Enumerate the chief chemical *properties* of hydrogen chloride.

10 2. (*a.*) Clearly distinguish between *acid, base, salt.* Give an example of each and write its formula.

7 (*b.*) Write a short note on the action of metals on acids, illustrating your answer by one example.

12 3. Describe a test for each of the following substances: oxygen; carbon dioxide; hydrogen.

7 4. (*a.*) Outline a laboratory method for preparing pure *nitrogen.*

4 (*b.*) Give the chief physical properties of nitrogen.

7 (*c.*) What evidences are there for considering air a *mixture* and not a *chemical compound?*

4 5. (*a.*) State Gay-Lussac's Law of Volumes.

6 (*b.*) When 300 c.c. of hydrogen burn in chlorine, how many cubic centimeters of hydrogen chloride are produced, measured at the same temperature and pressure?

12 6. Write an equation to illustrate each of the following types of chemical reaction and indicate the name of each substance taking part in the reaction: simple decomposition; simple replacement; oxidation; reduction.

7. Describe what takes place in each of the following and write the equations (two in each case):—

8 (*a.*) A lighted taper is brought to the mouth of a jar of carbon monoxide and after all action has ceased lime-water is added and shaken up.

8 (*b.*) The end of a coil of iron-ribbon tipped with sulphur is ignited in a flame and then lowered into a jar of oxygen.

ENGLISH COMPOSITION. (Time, 2 hours.)

11 1. Use the following words correctly in sentences: healthy, healthful, wholesome; luxurious, luxuriant; notorious, notable; among, between; invent, discover.

8 2. State what is wrong with the following sentences and show how to improve them:—

(1.) The admiration of this poem was unanimous.

(2.) Put one of the pills in a little water and swallow it three times daily before meals.

(3.) Five score people were no joke to feed.

(4.) Night air, together with draughts, are the bugbear of many people.

Value.

6 3. Write after each of the following verbs at least four adverbs which carry out the idea suggested by the words enclosed in parentheses:—

(1.) The boy whistled (as though he were happy).

(2.) The man worked (as a good workman works).

(3.) The wind howled (as it does during a storm).

75 4. Write a composition of about two hundred words on *one* of the following subjects:—

A Day in the Life of the Village Preacher. (Based on *The Deserted Village.*)
The Scottish Archers. (*Quentin Durward.*)
The Roman Mob. (Based on *Julius Caesar.*)
My Favourite Winter Sport.

ENGLISH LITERATURE. (Time, 2 hours.)

[*Candidates will answer Section A and any* two *of Sections B, C, D.*]

SECTION A. NARRATIVE ENGLISH POEMS.

10 1. Quote ten consecutive lines from *one* of the following:—

(*a.*) *The Rime of the Ancient Mariner.*

(*b.*) *The Passing of Arthur.*

2 2. (*a.*) Who is the author of each of the poems referred to in question 1?

6 (*b.*) Name three poets of to-day who have contributed poems assigned for study for Grade X. Literature, in each case naming a poem of the author in question.

9 3. Write full notes of explanation on any *three* of the following passages:—

(*a.*) Shakespeare was of us, Milton was for us,
Burns, Shelley, were with us,—they watch from their graves!
He alone breaks from the van and the freemen,
He alone sinks to the rear and the slaves!

(*b.*) The sequel of to-day unsolders all
The goodliest fellowship of famous knights
Whereof this world holds record.

(*c.*) From the great deep to the great deep he goes.

(*d.*) So spake he, clouded with his own conceit.

2 4. (*a.*) What was the sin of The Ancient Mariner?

7 (*b.*) Discuss in some detail how the Mariner suffered the consequences of his wrong-doing.

4 (*c.*) Trace the steps whereby he obtained forgiveness.

2 (*d.*) What is the moral of the poem?

10 5. Write a paragraph on *one* of the following topics:—

(*a.*) Coleridge's Use of Figures of Speech.

(*b.*) Wordsworth, the Poet of Humanity.

(*c.*) Tennyson's Descriptions of Nature.

8 6. Give briefly what you consider to be the central theme of any *two* of the following poems:—

(*a.*) *Goblin Market.*

(*b.*) *Fidelity.*

(*c.*) *The Stone.*

SECTION B. JULIUS CAESAR.

Value.

10 1. "We will find of him a shrewd contriver." In the light of succeeding events show that this estimate of the character of Antony was an accurate one.

10 2. Write on *one* of the following:—

(*a.*) Discuss the means used by Decius Brutus to persuade Julius Caesar to go to the Senate House on the day of his assassination.

(*b.*) Shakespeare's Use of the Supernatural in *Julius Caesar.*

SECTION C. QUENTIN DURWARD.

10 1. Write a carefully written paragraph on The Treachery of Louis XI.

10 2. Write a brief account of *one* of the following:—

The Boar-Hunt.

The Journey of the Ladies of Croye under the Escort of Quentin Durward.

SECTION D. SPECIMENS OF THE SHORT STORY.

10 1. What do you consider the lesson to be learned from Hawthorne's story, *The Great Stone Face?*

10 2. Write on *one* of the following:—

(*a.*) Show wherein *Phil Fogarty* is a burlesque on such stories as it was intended to ridicule.

(*b.*) Discuss the principle of Climax in The Short Story, contrasting the use made of it in *Markheim* and in *The Purloined Letter.*

FRENCH. (Time, 2 hours.)

7 1. (*a.*) Write the verbs of the following passage in the present tense, using "je" as subject, and making any other necessary changes:—

Il *allait* à l'école tous les jours. Il *s'asseyait* à sa place, puis il *ouvrait* son cahier et *se mettait* au travail. Il *apprenait* le français, et il *lisait* un livre intéressant. À midi il *revenait* chez lui pour son déjeuner.

7 (*b.*) Replace the verbs in italics of the following passage by the past indefinite tense:—

Ce matin je *dire* "Au revoir" à ma mère et je *partir.* En allant à l'école je *voir* quelques amis. Je *faire* tous mes devoirs en classe et après l'école je *aller* avec un camarade faire une promenade sur l'eau. Nous *s'amuser* bien.

5 (*c.*) Rewrite the following sentences adding the expressions given in brackets, and making necessary changes in the verb tenses:—

(1.) Il se dépêche (S'il était en retard).

(2.) Nous remplirons nos devoirs (À présent).

(3.) Elle reçoit beaucoup de lettres (Autrefois).

(4.) Il voit beaucoup de choses intéressantes. (Quand il visitera ces autres pays.)

(5.) Vous avez assez de temps pour faire cela. (Demain.)

6 (*d.*) Put the correct terminations to the words in italics in the following:—

(1.) Voulez-vous nous *pass*— les cerises? Qui les a *mang*—?

(2.) Avez-vous *fin*— vos devoirs?

(3.) Quels légumes les marchands ont-ils *vend*—.

(4.) En *ouvr*— la porte, avant d' *entr*— dans l'école, il enlève sa casquette.

Value.

7 2. (*a.*) Substitute personal pronouns for the words in italics:—

(1.) Donnez-moi *du raisin.*

(2.) Il voit *les bicyclettes.*

(3.) C'est *l'éditeur* qui a envoyé ces livres *à ses amis.*

(4.) Il ne répond pas *à mes questions.*

(5.) Elle est assise derrière *ses soeurs.*

(6.) Il est plus agréable que *ses frères.*

5 (*b.*) Fill in the spaces with suitable relative pronouns:—

(1.) Le mouchoir — vous aviez perdu était sur la table.

(2.) C'est le professeur — nous enseigne l'arithmétique, et à — nous donnons nos cahiers.

(3.) C'est la maison — j'ai parlé.

(4.) Voici le magasin devant — il a trouvé le porte-monnaie.

3 (*c.*) Fill in the spaces with suitable interrogative pronouns:—

(1.) — arrivera demain? Mon fils!

(2.) — — — est amusant? Ce livre-ci.

(3.) En — est votre crayon? En bois.

8 (*d.*) Make up sentences in French, using the following words: (1) rien; (2) plusieurs; (3) celui; (4) c'est.

10 3. Name the following in French, using an article, and giving the English for each word:—

(*a.*) two wild animals.

(*b.*) two birds.

(*c.*) two vegetables.

(*d.*) two fête days.

(*e.*) two articles of clothing.

12 4. Write a sentence in French about each of *four* of the following people, telling what they do:—

(*a.*) la cuisinière.

(*b.*) le libraire.

(*c.*) le médecin.

(*d.*) le charpentier.

(*e.*) la couturière.

(*f.*) le jardinier.

(*g.*) le marin.

(*h.*) le laboureur.

30 5. Translate into French the following conversation:—

Henry: John, wake up! It is half-past eight, and breakfast is ready. Have you forgotten that to-day is a holiday and we are going to have a long motor ride this morning?

John: When I went to bed last night I was thinking of this and I did not go to sleep at once. That is why I did not wake sooner. What is there for breakfast?

Henry: Fruit, boiled eggs, and coffee. Mary is toasting some bread now. Get dressed quickly! We shall be late.

John: I hope it doesn't rain.

Henry: Oh no! It is a beautiful day, and as soon as you are ready we shall start. (prêt: ready.)

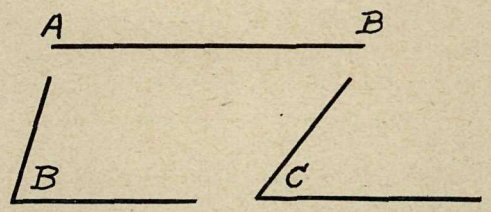
GEOMETRY. (Time, 2½ hours.)

Value.

14 1. The bisectors of two opposite angles of a parallelogram are parallel.

14 2. Of all the straight lines that can be drawn to a given straight line from a given point outside it, the perpendicular is the shortest.

14 3. Construct accurately a triangle ABC from the data here given. Prove your construction.

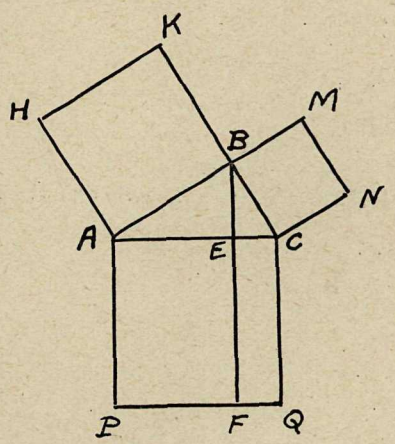


14 4. Any two sides of a triangle are together greater than the third side.

14 5. Find a point on the base of a scalene triangle equidistant from the two sides. Prove your construction. Is this the middle point of the base? Give the reason for your statement.

14 6. What is the locus of a point which is equidistant from two fixed points P and Q? Give a proof of your statement.

16 7. In the diagram, ABC is a triangle right-angled at B, AHKB, BMNC, and CQPA are squares, and BEF is drawn parallel to CQ. Prove that the rectangle ECQF is equal to the square BMNC.



HISTORY. (Time, 2 hours.)

[*Answer any* five *questions.*]

20 1. Outline briefly the reforms made by Julius Caesar in the Roman state during the years immediately prior to his assassination.

20 2. (*a.*) Describe what the early Roman emperors did in developing highways, commerce, architecture, and education.

(*b.*) Contrast this development with conditions in Europe during the period 400–800 A.D.

Value.

20 3. (*a.*) Outline the main causes of the decline of the Roman Empire.
(*b.*) Show how the long existence of the Roman Empire was of great importance to the growth and organization of Christianity.

20 4. (*a.*) Show how the growth of Mediæval towns was helped by the Crusades.
(*b.*) Write on Mediæval town life.

20 5. (*a.*) What do you understand by "The Renaissance"?
(*b.*) Trace briefly some of its early developments in Art, Religion, and Science.

20 6. Show the importance of Magna Charta, The Petition of Right, and the Bill of Rights in the development of free institutions in England.

20 7. (*a.*) Write briefly on the teaching of Calvin and its results.
(*b.*) Show how the Roman Catholic Church was able to maintain its hold on the south of Europe after the Reformation.

20 8. (*a.*) Explain the work of Voltaire and Rousseau in preparing the French people for the Revolution.
(*b.*) Write briefly on the character, abilities, and aims of Napoleon.

LATIN. (Time, 2 hours.)

12 1. Give the genitive and ablative singular and genitive plural of the following: *opus, cornu, animal, obses.*

6 2. Decline in singular: *res justa; rex fidelis;* in plural: *princeps monens.*

6 3. Compare: *acer, gracilis, audax, multus, parvus, utilis.*

4 4. Express in Latin: five hundred hostages; forty-three towns; thirty-five soldiers.

2 5. Distinguish in meaning: *is, ille, ipse, hic.*

6 6. Decline in combination: *eadem res publica incolumis.*

5 7. Write out the imperative active of: *scribo, teneo, nolo, fero, eo.*

9 8. Give the principal parts of *capio, peto, ago, verto, consulo, adeo;* and give the present indicative, first person, singular of *ausus sum;* the imperfect subjunctive of *fio;* and perfect indicative of *possum.*

35 9. Translate into Latin:—
(*a.*) Having pitched their camp, they determined to await Caesar's arrival.
(*b.*) They promise that they will do all this.
(*c.*) He wrote that he had abundance of corn and cattle.
(*d.*) How large is the swiftest of your ships?
(*e.*) He asked where the rest of the troops were.
(*f.*) He has been unable to persuade me.
(*g.*) Since he could not overtake the army, he recalled the cavalry.

15 10. Translate into English:—

Ancoris jactis, Ulixes constituit nonnullos e sociis in terram exponere, qui aquam ad navem referrent et qualis esset natura ejus regionis cognoscerent. Hi igitur e navi egressi imperata facere parabant. Dum tamen fontem quaerunt, quidam ex incolis occurrunt atque hospitio acceperunt. Accidit autem ut miro quodam fructu quem lotum appellabant hi homines viverent. Quem cum Graeci gustavissent, patriae et sociorum statim obliti, affirmaverunt semper se in ea terra mansuros, ut dulci illo cibo in perpetuum fruerentur.

Account for mood of *referrent; esset.*
parabant—give force of tense.
fructu—account for case.

PHYSICS. (Time, 2 hours.)

[*Questions are of equal value. Answer* five *only.*]

1. (*a.*) What causes the flow of water from a *force-pump* to be continuous and not intermittent?

   (*b.*) Draw a sketch or diagram to explain the action of a pump for inflating a bicycle or automobile tire.

   (*c.*) A bar of iron is placed near the N-pole of a bar-magnet. What is the effect on the lines of force in the magnetic field? Illustrate by a drawing.

2. (*a.*) What is a *machine?* Name the simple machines known as the *mechanical powers.* Show the position of the *fulcrum* and the *force applied* when sugar-tongs are used?

   (*b.*) A man weighing 160 pounds lifts a weight of 90 pounds by means of a single *fixed* pulley together with a single *movable* pulley. Draw a diagram illustrating the arrangement. What force does the man exert on the rope? What advantage is gained from each pulley? When pulling up the weight what pressure does the man exert on the floor?

3. (*a.*) Describe an experiment to determine the *buoyant force* which a liquid exerts on an immersed body.

   (*b.*) A cube of glass hanging by a string is half immersed in water. What is the tension on the string if the cube weighs 13 kilograms in the air and the specific gravity of glass is 2.6?

4. (*a.*) What is the purpose of the *barometer?* Describe the construction of any barometer in common use.

   (*b.*) State *Boyle's Law* and apply it in solving the following problem: A steel tank contains 1.9 cubic metres of oxygen gas at a pressure of 745 mm. How many litres will this gas occupy when the pressure is 760 mm., the temperature remaining unchanged?

5. (*a.*) Describe the laboratory method of establishing the *law of reflection.* Illustrate by a sketch.

   (*b.*) Explain *regular* and *irregular* reflection and give two examples of each. How is visibility affected by each?

   (*c.*) A pin-hole camera 9 inches long is used to photograph a flag-pole 72 feet high. If the image is 3½ inches high how far is the camera from the pole?

6. (*a.*) Explain clearly any *one* of the following: *compensated pendulum; "thermos" bottle; Davy safety lamp.*

   (*b.*) What reading on the Fahrenheit thermometer corresponds to –15° C.?

   (*c.*) If 40 grams of a metal are heated to 100° C. and then placed in 47 grams of water at 73° C., the resulting temperature is 75° C. Find the specific heat of the metal.

7. (*a.*) What is the use of each of the following: *Electroscope; Galvanoscope; Leyden Jar?*

   (*b.*) Draw a diagram illustrating a *closed electric circuit* with a *battery* of voltaic cells in it arranged in *series.* Indicate the direction of the current. How would you use the current to magnetize a darning-needle?

Grade XI., Junior Matriculation and Normal Entrance.

AGRICULTURE. (Time, 2 hours.)

[*Questions are of equal value. Answer* seven *only.*]

1. Discuss the active principles of different kinds of sprays used by the orchardist and the gardener.
2. What causes deterioration of milk, and how can we lengthen its "period of usability"?
3. How do natural and artificial incubation compare with each other?
4. By what methods can the dairyman increase the production of his herd?
5. Given sufficient quantities of and choice between stable manure and artificial fertilizers, how, and in what quantities, would you apply them in the following garden rotation:—
   (1.) Cabbage plants (cabbage, kale, Brussels sprouts);
   (2.) Roots (beets, carrots, parsnips);
   (3.) Legumes (peas, beans);
   (4.) Potatoes?
6. Describe the two main divisions of common weeds and suggest practical methods for their extermination.
7. What are the five most valuable constituents in barnyard manure?
8. Discuss different ways in which the farmer or gardener can promote bacterial activity in the soil.
9. What are the functions of water in the soil, and under what conditions is water beneficial or harmful?

ALGEBRA. (Time, 2½ hours.)

Value.

12 1. (*a.*) Factor:—

(1.) $x^3 - 6x^2 + 12x - 8$.

(2.) $24ax - 16a^2 - 9x^2$.

(3.) $x^2y + 3xy^2 - 3x^3 - y^3$.

(*b.*) Supply the missing term so as to make a perfect square:—

(1.) $9m^2n^2 - (\quad) + 4$.

(2.) $25x^2 + 30x + (\quad)$.

12 2. Simplify:—

(1.) $\dfrac{4a^2 - 4a + 1}{4a^2 - 1} \times \dfrac{2a^2 + a}{8a^3 - 1} \div \dfrac{a^2 - 2a}{a^2 - 4}$.

(2.) $1 - \dfrac{2}{3 + \dfrac{4}{5 - \dfrac{6}{7}}}$.

14 3. (*a.*) Solve: $.05x - 1.82 - .7x = .008x - .504$.

(*b.*) The pressure of water on a pipe that will not burst the pipe is called the safe working pressure. In cast-iron pipes, such as carry water in a city water-system, the safe working pressure is given by the formula

$$P = \frac{7200}{D}\left(T - \frac{1 - .01\,D}{3}\right) - 100.$$

in which P = the pressure per square inch,
D = the inside diameter of the pipe in inches,
T = the thickness of the iron shell in inches.

Given D = 3 ft., T = 1½ in., find P.

Value.

12 4. A man receives \$140 per year as interest on \$2,500. \$500 is invested at 5%; part of the remainder at $5\frac{1}{2}$%, and the rest at 6%. How much has he invested at $5\frac{1}{2}$%?

12 5. Solve: $2x^2 - xy = 28$
$x^2 + 2y^2 = 18.$

14 6. (*a.*) A boy can row 10 miles down stream in 2 hours and return in $3\frac{1}{3}$ hours. Find the rate at which he rows in still water and also the rate of the current.
(*b.*) Find two numbers whose difference is 4 and the sum of whose reciprocals is $\frac{3}{8}$.

12 7. Simplify: $\frac{4^{n+1}}{2^n(4^{n-1})^n} \div \frac{8^{n+1}}{(4^{n+1})^{n-1}} + 3.$

12 8. (*a.*) If *a*, *b*, *c*, *d* are in continued proportion, prove that $(b+c)$ is a mean proportional between $(a+b)$ and $(c+d)$.
(*b.*) Solve graphically: $x^2 + y^2 = 100$
$x - y = 2.$

BOTANY. (Time, 2 hours.)

[*All questions are of equal value. Answer* five *only. Illustrate your answers by carefully drawn diagrams.*]

1. Describe the adaptions in flowers for (*a*) wind pollination; (*b*) insect pollination; (*c*) cross pollination. Give one example to illustrate each adaption described.
2. Make diagrams and give floral formulæ to illustrate the structure of a flower belonging to: (*a*) Liliaceæ; (*b*) Leguminosæ; (*c*) Scrophulariaceæ; (*d*) Cruciferæ.
3. Sketch the life-history of a moss *and* of a fern, making clear what is meant by the "alternation of generations."
4. Compare the subterranean absorbing system of a plant with the aerial absorbing system in the following particulars: (*a*) materials absorbed; (*b*) regions through which absorption takes place; (*c*) methods of absorption; (*d*) uses of the materials absorbed.
5. Trace the development of an ovule into a seed, describing the function of the pollen grain, stigma, style, micropyle, and embryo sac.
6. Compare the fruits of the pea, buttercup, cherry, apple, and strawberry in respect to (*a*) structure; (*b*) origin of parts; (*c*) method of seed dispersal.

CHEMISTRY. (Time, 2 hours.)

Value.

16 1. State the law of definite proportions and the law of multiple proportions, and show how each is explained by the atomic theory.

14 2. Describe, with equations, one method for the manufacture of sulphuric acid. What are the properties and uses of this substance?

14 3. Give an account of chlorine under the following headings:—
(*a.*) Laboratory preparation;
(*b.*) Physical properties;
(*c.*) Chemical properties;
(*d.*) Commercial importance.

Value.

14 4. Explain clearly what is meant by each of the following terms and give one example of each: anhydride, catalyst, chemical equilibrium, molar weight, exothermic reaction, synthesis, acid radicle.

14 5. (*a.*) Name five characteristic properties of aqueous solutions of acids.

(*b.*) Name four characteristic properties of aqueous solutions of bases.

(*c.*) Mention four distinct methods of salt formation. Give, with equation, one example of each method.

14 6. What weight of acetylene can be prepared from 6.4 grams of pure calcium carbide? What volume does the dry gas occupy at 27° C. and 380 mm. pressure?

14 7. If 1 gram of copper powder is burned in chlorine the powder gains in weight 1.116 grams. What is the percentage composition of copper chloride? What is its simplest formula?

Atomic weights: H=1, Ca=40, C=12, Cu=63.6, Cl=35.5, O=16.

ENGLISH COMPOSITION. (Time, 2 hours.)

[*Candidates are reminded that they are expected to spell and punctuate correctly. They are therefore urged to leave some few minutes free for a revision of their papers. They are also reminded that they cannot expect marks for paragraphs and essays that are not well organized and well worked out. They are therefore urged to plan their compositions before they begin to write. The plan of the essay in question 2 should be written in the examination book as part of the answer.*]

20 1. Point out definitely what is faulty in the following sentences, and rewrite them in correct form:—

(*a.*) When I saw him wavering and that his skate was loose, I knew he would fall.

(*b.*) She was not only happy over his victory but also over the defeat of his rival.

(*c.*) As his wife, her every wish was granted.

(*d.*) The exercise keeps you in condition and a fellow can study better.

80 2. Draw up a plan and write an essay of at least 300 words on *one* of the following topics:—

(*a.*) The Character of Leicester as presented in *Kenilworth.*

(*b.*) Silas Marner's Early Environment: its Nature and its Effect on his After-life.

(*c.*) "The Nelson Touch" or The Secret of Nelson's Power.

(*d.*) Life in Arden.

(*e.*) The Character of King Arthur's Court as presented in *Gareth and Lynette.*

(*f.*) The Characteristics of My Favourite Book.

ENGLISH LITERATURE. (Time, 2½ hours.)

[N.B.—*Candidates will write on Parts A and D, and on* either *Part B* or *Part C.*]

PART A.

Choose *one* of the poets you have studied in *Poems of the Romantic Revival*, and write on his work as indicated below. Your answers must be illustrated by quotations from, or definite references to, the poems studied.

6 1. Show your poet's relation to the Romantic Revival.

8 2. Point out at least two ways in which the circumstances of his life affected his writing.

Value.

10 3. Make a comparison, on at least two points, between his work and the work of one of his contemporaries.

16 4. Quote at least 12 consecutive lines from his verse and show at least two ways in which they are characteristic of his work in general.

PART B.

6 1. List half a dozen words or expressions that have changed their meaning since Shakespeare's day and state what they meant to Shakespeare.

17 2. Write a short essay on the variety of the interests that *The Merchant of Venice* arouses in the reader or play-goer.

17 3. Illustrate clearly three points in the character of Shylock by quotation from or discussion of as many passages in the play.

PART C.

6 1. List half a dozen words or expressions that have changed their meaning since Shakespeare's day and state what they meant to Shakespeare.

17 2. What was the attitude of Shakespeare's audience toward witches and witchcraft? What is your own attitude toward them? What purposes do they serve in the play of *Macbeth?*

17 3. Write on Macbeth as a study in character decay. Trace clearly the successive stages of that decay.

PART D.

20 The following poem is given as an exercise in "sight-reading." Of the questions appended below, answer (1) and (2) and any two of the others.

Dirge in Woods.

A wind sways the pines,
And below
Not a breath of wild air;
Still as the mosses that glow
On the flooring and over the lines
Of the roots here and there.
The pine-tree drops its dead;
They are quiet, as under the sea.
Overhead, overhead
Rushes life in a race
As the clouds the clouds chase;
And we go,
And we drop like the fruits of the tree,
Even we,
Even so.

1. Describe the situation in which the poet finds himself as the idea of the lines comes to him: the place he is in, the time of year, etc.
2. Point out a contrast, as to the movement of things, that is presented in the poem. What words or phrases bring out this contrast especially well? What contrast in the life of the human race is symbolized in the poem?
3. Comment on the suggestions conveyed by *wild, glow, flooring, under the sea.*
4. Point out two cases of "sound suiting sense."
5. What is a "dirge"? Why is this a fitting title for the piece?

FRENCH GRAMMAR. (Time, 2 hours.)

Value.

20 1. Explain, in French, the following words: le rhume; le cavalier; l'acteur; le parterre; le bachelier; l'estrade; le député; le port; l'usine; le tonnerre.

8 2. Complete the following sentences by putting the verbs, printed in italics, in the tense required by the context:—

(*a.*) Ses manières affectées ne m'ont pas *plaire.*

(*b.*) Mon petit lapin *mourir* hier.

(*c.*) Il *conduire* son automobile une seule fois avant l'accident du mois dernier.

(*d.*) Nous avons toujours *vivre* de notre travail.

(*e.*) Je *s'ennuyer* quand je n'ai rien à faire.

(*f.*) Est-ce que vous *venir* demain?

(*g.*) Nous le *connaître* depuis deux ans.

(*h.*) Il arriva après qu'elle *sortir.*

12 3. Change the words in italics, if necessary, so as to make them agree with the context:—

Les *cheval* sont *aller* à l'écurie car les *travail* des champs sont *finir* pour la journée. Dans les champs qu'ils ont *labourer* on *aller* planter des *chou.* Ces *animal aimer* à *manger* le foin, qui est de l'herbe *sec* et quand ils ont *manger* ils se reposent.

20 4. Write sentences in French, using the following verbs so as to illustrate the use of the tenses marked after them: dire (pres. subj.); lire (past def.); ouvrir (past part.); pleuvoir (fut. indic.); vouloir (cond. pres.).

10 5. Put into French:—

We shall go for a walk.
You are lucky.
I should like to make the acquaintance of M. Durand.
Water cannot do you any harm.
You are right.

30 6. Put into French:—

He will be back in an hour and I can ask him for some. I shall be happy to help you and we can begin to work if you wish to make the boat. There is enough wood to make two. I remember the one we made some years ago. We succeeded in building a splendid boat. It is quite as good as theirs and it is about twice as big. We shall work in the open air because it is healthier. Since the work will be rather noisy we shall do it in the open country and as soon as possible. This boat will be the best you ever saw.

FRENCH TRANSLATION. (Time, 2 hours.)

35 1. Write a letter, in the first person, to M. Jean Dupont, 42 Rue Poulbot, Paris, describing a visit to the country. Use the following material. Sign your name "T. Brown" and give your address at 326 Hastville Street, Vancouver. *Do not use your real name and address.*

You have just come back from a month's holiday in the country. The turf was very green and the cherry-trees in flower. The uncultivated ground was covered with ferns and in the clearings of the forest there were wild strawberries.* Unfortunately George tried to climb a maple tree, fell from a branch and hurt his face. Your bicycle was very useful on this occasion for you had to fetch a doctor. You were lucky to find him at home. George is now quite well again but the scar can still be seen. You asked your father for some books and you gave them to George to amuse him after his accident.

* Say *strawberries of the woods.*

Value.

He asked whether he should send them to you by post but you replied that it was not worth while. He is going to bring them himself, to-day week, and you will go to the station to meet him. He often speaks of M. Dupont and of the pleasant stay at his house in Paris.

40 2. Treat *two* of the following in French, about a page for each:—

(*a.*) Comment voulez-vous gagner votre vie—ou vous rendre utile—quand vous aurez terminé vos études?

(*b.*) Expliquer à un Français ce qu'on fait pour célébrer Hallowe'en.

(*c.*) Expliquer à un Français comment on joue au basketball.

(*d.*) Faites la description de votre salle à manger.

25 3. Put into English:—

Je ne saurais oublier le spectacle à l'embouchure du fleuve. Les bateaux de pêche toutes voiles déployées* avaient quitté le quai et, entourés de mouettes qui les suivaient, descendaient lentement vers la mer. Un navire à voiles, aussi modeste qu'il soit, me paraît toujours imposant. Parmi les vagues ils ont l'air de lutter et les grandes lames ne les effrayent pas. Les hommes à bord ne craignent pas le naufrage. Ils sont sûrs de leurs camarades; ils ont confiance dans leur bateau, et ils veillent toujours. Ils sont tellement occupés qu'ils ne voient pas le danger. Peut-être leurs femmes y pensent-elles davantage car elles entendent le vent, et la mer qui bat les côtes. Le gardien du phare les rassure et tout le village est en fête quand on voit au loin les bateaux qui reviennent chargés de morue.

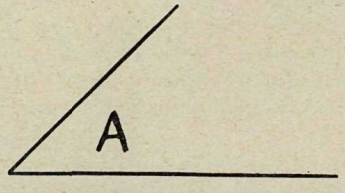
* Spread.

GEOMETRY. (Time, 2½ hours.)

[N.B.—*Draw neat diagrams; use printed capitals. Cite authorities by number or by enunciation.*]

1. Make *accurate* constructions of the following, omitting explanations or proofs but showing all the necessary construction lines:—

10 (*a.*) On a chord 1½ inches long construct a segment of a circle containing an angle equal to the given angle A.



10 (*b.*) Describe a triangle ABC having AB = 2¼ in., BC = 2 in., and AC = 1 in. Bisect the angle A internally and externally by lines which cut BC and BC produced.

5 2. Compute the lengths of the segments into which BC, in the preceding question, 1 (*b*), is divided by the internal and external bisectors of the angle A.

15 3. (*a.*) ABC is a triangle having BC = *a*, CA = *b*, AB = *c*. State which is greater, a^2 or b^2+c^2, and by how much they differ in the following cases: (1) A = 90°; (2) A = 80°; (3) A = 110°. Illustrate with diagrams.

(*b.*) Prove your statement in 3 (*a*) when A = 110°.

15 4. (*a.*) Prove the theorem: If two chords intersect within a circle the rectangle contained by the segments of one is equal to the rectangle contained by the segments of the other.

(*b.*) Is this theorem true when the point of intersection, mentioned in 4 (*a*), lies *on* or *without* the circumference? Give reasons.

Value.

15 5. ABCD is a cyclic quadrilateral whose diagonals AC and BD intersect at E. A circle is drawn through ABE. Prove that the tangent at E is parallel to CD.

15 6. On a given base construct a triangle having a given vertical angle and its sides in the ratio 3 : 2.

15 7. Show how to trisect a given square by straight lines drawn parallel to one of its diagonals.

GERMAN GRAMMAR. (Time, 2 hours.)

10 1. Give with the article the nominative and genitive singular and the nominative plural of the following nouns: Platz, Keller, Menſch, Stadt, Neffe, Schweſter, Königtum, Katze, Herz, Tür.

10 2. Put into German :—

(1.) The class waited for the teacher.
(2.) He sat in front of me.
(3.) He sat down next me.
(4.) He came instead of his brother.
(5.) He lives at his uncle's.
(6.) He rode around the park.
(7.) He came after school.
(8.) He has been here for a week.
(9.) He went through the house.
(10.) He stayed at home on account of the rain.

10 3. Insert articles and fill in correct endings where necessary, then rewrite in the plural :—

Dies—rot—Buch gehört—fleißig—Schüler, der mit ſein—jung—Bruder auf ein—grün—Bank ſitzt. —gut Knabe ſchreibt ein—lang—Satz in ſein—groß—Heft und beantwortet jed—Schwer Frage—alt—Lehrers in—deutſch—Klaſſe.

10 4. Change the following verbs to the imperfect and perfect tenses :—

(1.) Er hilft ſeinem Vater.
(2.) Du trittſt in das Zimmer.
(3.) Ihr fahrt heute ab.
(4.) Ich verſtehe den Lehrer.
(5.) Sie ziehen ſich an.

10 5. (*a.*) Change the following infinitives to the correct forms of the present tense :—

(1.) Er heben die Kreide.
(2.) Du ſprechen zu laut.
(3.) Er laufen ſchnell.
(4.) Er wiſſen es nicht.
(5.) Du leſen gut.

(*b.*) Write the future of (1), the future-perfect of (3), and all the imperative forms of (2) and (5).

Value.

10 6. Put into German :—

(1.) She gave them her pencil; it was sharper than his.

(2.) Your house is as large as ours.

(3.) The richest people live in the finest houses.

(4.) Fritz writes better than Karl, but Paul writes best of all.

(5.) With what shall I write and for whom?

6 7. (*a.*) Combine the following sentences by means of a relative pronoun :—

(1.) Ich habe deinen Brief erhalten. Du sendest ihn am 1. Juni ab.

(2.) Sie besuchten Karls Tante. Ihr Sohn war in Amerika.

(3.) Paul sendet Dir Grüße. Ich habe ihm deinen Brief gezeigt.

(*b.*) Combine the following sentences by means of the conjunction given :—

(1.) Ich gehe heute nicht aus. Es wird regnen. (denn.)

(2.) Die Schule ist aus. Ich gehe nach Hause. (wenn.)

(3.) Ich hatte kein Geld. Er wußte es. (daß.)

16 8. Put into German :—

(1.) He thought that Mr. Brown's house was burning.

(2.) The new is not always better than the old.

(3.) He who laughs last, laughs best.

(4.) I gave her all that I had.

(5.) Schiller was born on the 10th of November, 1759, in the town of Marbach. (In full.)

(6.) Please give me three glasses of milk and two cups of tea.

(7.) I am sorry that you are not feeling well today.

(8.) My name is Braun and I live at 2586 Granville Street. (In full.)

18 9. Put into German :—

The lazy boy did not want to go to school but he had to go. His father said, "Get up promptly at half-past seven and dress yourself quickly; then you can eat your breakfast and go to school at twenty minutes to nine." There the teacher said, "You must pay attention. You can learn your lessons if you want to. But if you cannot do your work, you will have to stay in after school and study while the others play. In the evening you must study again at home before you go to bed."

GERMAN TRANSLATION. (Time, 2 hours.)

60 1. Put into English :—

(*a.*) Die Biene begegnete ihm und sprach: „Bär, du machst ein gewaltig trauriges Gesicht; wo ist deine Lustigkeit geblieben?" „Du hast gut reden," antwortete der Bär; „es sitzt ein grimmiges Tier mit Glotzaugen in dem Hause des Roten, und wir können es nicht herausjagen." Die Biene sprach: „Ich bedaure dich, Bär; ich bin ein armes, schwaches Geschöpf, das ihr nicht anguckt, aber ich glaube doch, daß ich euch helfen kann."

(*b.*) Nach etlichen Wochen konnte er nur seufzen und stöhnen, und bald raufte er sich stundenlang die Haare nnd schüttelte sich vor Schauder und Widerwillen; Kathrinchen aber plauderte fröhlich fort. Nach etlichen Monaten fing er an abzumagern, kein Essen schmeckte ihm mehr, und

Value.

sogar keine Pfeife und kein Kautabak, und er ward ersichtlich schwächer und schwächer. Als noch ein Monat herum war, lag er als ein bleicher Schatten auf seinem Bette und bereitete sich heimlich in seinem Herzen zum Tode vor.

(*c.*) Da tat der Knabe selbst den Mund auf und fing an, treu und einfältig die Geschichte vom Engel zu erzählen, wie er den Hansel entführte, auch wie er ihm unlängst wieder erschienen sei und ihm die unsichtbare Wiese gezeigt habe, welche den Hans so stattlich gemacht. Darüber waren freilich die Anwesenden hoch erstaunt, allein die Königin sagte: „Gewiß, das ist ein frommer Sohn, und die Wahrheit steht ihm an der Stirn geschrieben."

(*d.*) Den Schiffer im kleinen Schiffe
Ergreift es mit wildem Weh;
Er schaut nicht die Felsenriffe,
Er schaut nur hinauf in die Höh'.
Ich glaube, die Wellen verschlingen
Am Ende Schiffer und Kahn;
Und das hat mit ihrem Singen
Die Lorelei getan.

(*e.*) „Willst, feiner Knabe, du mit mir gehn?
Meine Töchter sollen dich warten schön;
Meine Töchter führen den nachtlichen Reihn
Und wiegen und tanzen und singen dich ein."
Mein Vater, mein Vater, und siehst du nicht dort
Erlkönigs Töchter am düstern Ort?—
Mein Sohn, mein Sohn, ich seh' es genau;
Es scheinen die alten Weiden so grau.—

(*f.*) Der Vater hieß mich merken auf jedes Vogels Flug,
Auf aller Winde Wehen, auf aller Wolken Zug;
Und bogen dann die Stürme den Mast bis in die Flut,
Und spritzten dann die Wogen hoch über meinen Hut,
Da sah der Vater prüfend mir in das Angesicht—
Ich saß in meinem Korbe und rüttelte mich nicht—
Da sprach er, und die Wange ward ihm wie Blut so rot:
Glück zu auf deinem Maste, du kleiner Hydriot!

10 2. Translate at sight:—

Eines Tages warf ein kleiner Junge einen Stein und brach ein großes Schaufenster. Natürlich lief er fort so schnell wie er nur konnte. Der zornige Kaufmann rannte aber sogleich hinter ihm her und hatte ihn bald erfaßt. „Du hast mein Fenster zerbrochen!" rief der Kaufmann ärgerlich, „Nun sollst du dafür bezahlen!" „Das wollte ich eben," sagte der schlaue Junge, „aber so viel Geld hatte ich ja nicht bei mir, und deshalb wollte ich nach Hause um das Geld zu holen."

12 3. Put into German:—

A dog, carrying a piece of meat over a foot-bridge, looked down into the water and saw a dog that also was carrying meat. He sprang into the river, and as he snapped at his image in the water, he let fall his piece of meat. Too late he found that he had snapped at a shadow.

18 4. Write in German a description of the four seasons. (At least half a page.)

GREEK. (Time, 2 hours.)

Value.

12 1. Decline throughout σύ, μήτηρ, ὅδε (masculine only).

8 2. Decline in the singular ὄρνις, νύξ; in the plural γέρων, ἡγεμών.

12 3. Write the present passive imperative of ἄγω, the imperfect active indicative of ποιέω, the perfect passive indicative of ἄγω.

4 4. Write (in the singular only) the aorist middle subjunctive of λύω and the future active optative of πέμπω.

5 5. State the method of expressing prohibitions, the form of clauses after verbs denoting *fear*, two uses of the dative case, the circumstances under which an enclitic retains its accent.

4 6. State the cases governed by διά, μετά, παρά, and πρό, with the meaning in each instance.

15 7. Write the principal parts of βούλομαι, διδάσκω, δοκέω, ἕπομαι, θαυμάζω, καλέω, λαμβάνω, λείπω, νομίζω, πράττω.

20 8. Translate into English:—

(*a.*) τῷ τῆς παιδὸς πατρὶ ἔδοξε πέμπειν αὐτὴν εἰς ἄλλην γῆν.

(*b.*) συμπέμψουσι δ' αὐτῷ καὶ ἄλλους στρατιώτας.

(*c.*) λέλυται οὖν αὐτοῖς ἡ γέφυρα ἵνα οἱ πολέμιοι ἑκατέρωθεν κυκλωθῶσιν.

(*d.*) ἐπεμελούμεθα γὰρ ὅπως μὴ τὰ αὐτὰ διδάξομεν.

(*e.*) εὐνοϊκῶς ἂν ἡμῖν εἶχον οἱ Πέρσαι εἰ μὴ ἐψηφισάμεθα ἀποχωρεῖν.

20 9. Translate into Greek:—

(*a.*) There are five black birds on your house.

(*b.*) It is not possible for all to be in-plain-sight a whole day.

(*c.*) These farms (use χωρίον) were full of trees.

(*d.*) If the man himself calls me, I will go to him.

(*e.*) We were afraid that they would arm themselves slowly.

HISTORY. (Time, 2 hours.)

[*Answer any* five *questions.*]

14 1. (*a.*) Trace the development of the Protestant Reformation in Switzerland and France.

6 (*b.*) By what means did the Roman Catholic Church retain its hold on France?

15 2. (*a.*) What were the points at issue between the Stuart Kings and Parliament?

5 (*b.*) Why did the Commonwealth fail?

13 3. (*a.*) To what extent did the wars of Louis XIV. undermine France?

7 (*b.*) Show how increased taxation helped to bring on the French Revolution.

12 4. (*a.*) Contrast the "Revolution in Peace," 1789–1792, with the "Terror," 1792–1795.

8 (*b.*) Account for the rise to power of Napoleon Bonaparte, 1795–1798.

10 5. (*a.*) Why did the Industrial Revolution first take place in England?

10 (*b.*) Give some account of the leading inventions.

6. Write notes on:—

5 (*a.*) The First Reform Bill, 1832.

5 (*b.*) The Chartist Agitation.

5 (*c.*) Free Trade.

5 (*d.*) "Votes for Women."

Value.

20 7. Trace the development of the British Empire since 1815.

12 8. (*a.*) "The Prussianization of Germany." How far does this phrase sum up the policy of Bismarck?

8 (*b.*) To what extent did William II. alter Bismarck's policy?

20 9. Give some account of the work of the League of Nations.

Or

Write a short account of the Colonial Period of British Columbia history, 1849–1871.

LATIN AUTHORS AND SIGHT TRANSLATION. (Time, 2½ hours.)

A. CAESAR, DE BELLO GALLICO, BOOKS IV. AND V.

10 1. Translate:—

Interim, consilio ejus cognito, et per mercatores perlato ad Britannos, a compluribus ejus insulae civitatibus ad eum legati veniunt, qui polliceantur obsides dare atque imperio populi Romani obtemperare. Quibus auditis, liberaliter pollicitus, hortatusque, ut in ea sententia permanerent, eos domum remittit.

(*a.*) Account for the case of *perlato, domum;* the mood of *polliceantur, permanerent;* the tense of *dare.*

6 2. Translate:—

Caesar questus, quod, cum ultro in continentem legatis missis pacem ab se petissent, bellum sine causa intulissent, ignoscere imprudentiae dixit obsidesque imperavit; quorum illi partem statim dederunt, partem ex longinquioribus locis arcessitam paucis diebus sese daturos dixerunt. Interea suos remigrare in agros jusserunt, principesque undique convenire et se civitatesque suas Caesari commendare coeperunt.

(*a.*) Account for the case of *dicbus;* the mood of *intulissent.*

9 3. Translate:—

L. Domitio Ap. Claudio consulibus, discedens ab hibernis Caesar in Italiam, ut quotannis facere consuerat, legatis imperat, quos legionibus praefecerat, uti quam plurimas possent hieme naves aedificandas veteresque reficiendas curarent.

(*a.*) Account for the case of *Domitio, legionibus;* the mood of *curarent.*

(*b.*) Write a note on *quam plurimas.*

(*c.*) Give the date.

10 4. Translate:—

His rebus cognitis a captivis perfugisque, Caesar, praemisso equitatu, confestim legiones subsequi jussit. Sed ea celeritate atque eo impetu milites ierunt, cum capite solo ex aqua exstarent, ut hostes impetum legionum atque equitum sustinere non possent, ripasque dimitterent ac se fugae mandarent.

(*a.*) Account for the case of *impetu, capite, fugae;* the mood of *exstarent, mandarent.*

B. VERGIL, AENEID II., LINES 1–505.

12 5. Translate:—

'sanguine placastis ventos et virgine caesa,
cum primum Iliacas, Danai, venistis ad oras:
sanguine quaerendi reditus, animaque litandum
Argolica.' vulgi quae vox ut venit ad aures,
obstipuere animis, gelidusque per ima cucurrit
ossa tremor, cui fata parent, quem poscat Apollo.

(*a.*) Account for the case of *reditus, anima;* the mood of *poscat.*

(*b.*) Scan the fifth line.

(*c.*) What do you understand by *sanguine placastis ventos?*

Value.

9 6. Translate:—

ille simul manibus tendit divellere nodos,
perfusus sanie vittas atroque veneno;
clamores simul horrendos ad sidera tollit:
qualis mugitus, fugit cum saucius aram
taurus et incertam excussit cervice securim.
at gemini lapsu delubra ad summa dracones
effugiunt, saevaeque petunt Tritonidis arcem,
sub pedibusque deae clipeique sub orbe teguntur.

(*a.*) Account for the case of *vittas.*

11 7. Translate:—

heu nihil invitis fas quemquam fidere divis!
ecce trahebatur passis Priameia virgo
crinibus a templo Cassandra adytisque Minervae,
ad caelum tendens ardentia lumina frustra,
lumina, nam teneras arcebant vincula palmas.
non tulit hanc speciem furiata mente Coroebus,
et sese medium iniecit periturus in agmen.

(*a.*) Account for the case of *nihil, quemquam, divis.*

(*b.*) What part does Cassandra play in the tale of Troy?

(*c.*) Scan the third line.

C. SIGHT TRANSLATION.

8. Translate at sight:—

20 (*a.*) The Haedui suspect treachery.

Vercingetorix coacto celeriter exercitu Lucterium, summae audaciae hominem, cum parte copiarum in Rutenos mittit; ipse in Bituriges proficiscitur. Eius adventu Bituriges ad Haeduos, quorum erant in fide, legatos mittunt subsidium rogatum, quo facilius hostium copias sustinere possint. Haedui moniti a legatis quos Caesar ad exercitum reliquerat, copias equitatus peditatusque subsidio Biturigibus mittunt. Qui cum ad flumen Ligerim venissent, quod Bituriges ab Haeduis dividit, paucos dies ibi morati non flumen transire ausi sunt, sed domum revertuntur legatisque nostris renuntiant se Biturigum perfidiam veritos revertisse. Nam dicebant Biturigibus id fuisse consilium ut si flumen transissent, una ex parte ipsi, altera Arverni se oppugnarent. Utrum haec vera dixissent an perfidia adducti essent, pro certo sciri non poterat.

13 (*b.*) Caesar arranges for the invasion of Mauretania.

Interim Cassio a Caesare imperatum est ut in Africam exercitum transportaret et ad Mauretaniam per fines Numidarum perveniret quod magna auxilia Pompeio Iuba rex Numidarum miserat maioraque missurus esse existimabatur. Quibus litteris acceptis Cassius ipse in Lusitaniam proficiscitur ad legiones arcessendas auxiliaque adducenda. Certis hominibus dat negotium ut frumentum compararet, centumque naves aedificaret ne qua res cum redisset moraretur.

LATIN GRAMMAR AND COMPOSITION. (Time, 2 hours.)

6 1. Write the ablative singular of *res, iter;* the accusative plural of *mare;* the genitive plural of *nox, manus, corpus.*

4 2. Decline together *alia navis, hoc animal.*

2 3. Write the numerals eight, eighty, forty-six, sixty-three.

Value.

6 4. Write the third singular future indicative of *nolo;* the third singular imperfect subjunctive of *proficiscor;* the third plural perfect subjunctive of *venio;* the perfect infinitive passive of *frango;* the third singular present indicative passive of *fero;* the first plural imperfect subjunctive passive of *capio.*

3 5. Compare *multus, liber, magnus.*

5 6. Write the principal parts of *nolo, parco, tollo, frango, cognosco.*

4 7. Write the Latin for: (*a*) At what time did he go away? (*b*) the same camp; (*c*) he will use this sword; (*d*) I know where they have been.

14 8. Translate into English:—

(*a.*) Ibi ex captivis cognoscit quae in hostium castris gerantur.

(*b.*) Nulli civitati persuadere poteramus.

(*c.*) Ut hostes consequi posset pontem in flumine fecit.

(*d.*) Negant se populo Romano bellum intulisse.

(*e.*) His de rebus me consulere nolebat.

(*f.*) Scripsit se Gallos qui ea loca incolerent expulisse.

(*g.*) Centuriones monuit ne signa in hostes inferrent.

56 9. Translate into Latin:—

(*a.*) They are said to be unwilling to help us.

(*b.*) He asks why we do not retreat into the forest.

(*c.*) They hesitate to leap down into the waves because they are unable to get a footing there.

(*d.*) They marched for three days across a plain of great extent.

(*e.*) We were not able to carry our baggage with us.

(*f.*) They do not know whence we have set out.

(*g.*) They say that they have always helped their friends and injured their enemies.

PHYSICS. (Time, 2 hours.)

[*The* last *question and* any other five *constitute a full paper.*]

16 1. (*a.*) Make a clear drawing of a pulley system which has a mechanical advantage of 2, and show that the work put into this machine is equal to the work obtained from it if friction be neglected.

(*b.*) Show clearly by reference to a drawing how to determine the velocity of sound in air by resonance.

16 2. (*a.*) How does the intensity of a sound depend on the distance from the source? Prove this law.

(*b.*) A body which weighs 6 grams in air has a sinker attached to it and the two together weigh 16 grams in water. The sinker alone weighs 24 grams in water. What is the density of the body?

16 3. (*a.*) Define the following terms: thermal capacity, convection currents, dew point, mechanical equivalent of heat.

(*b.*) A candle and a gas-flame which is four times as strong are placed 6 feet apart. There are two positions on the line joining these sources where a screen may be placed so that it may be equally illuminated by each source. Find these positions.

16 4. (*a.*) Describe Newton's method of obtaining the spectrum and explain clearly how the colour of natural objects arises.

(*b.*) How much heat is necessary to change 30 grams of ice at –15° C. to steam at 100° C.? Take the specific heat of ice to be 0.5.

Value.

16 5. (*a.*) By means of a drawing show how to determine the position of the image formed by an object placed (1) between the centre of curvature and the principal focus of a concave mirror, (2) between the principal focus and the vertex.

(*b.*) A few turns of insulated wire are wound around a horizontal cardboard tube and the ends of the wire are joined so as to make a complete electric circuit. The N-pole of a bar magnet is introduced into the right-hand end of the coil. Make a drawing of a side view of the arrangement. Mark the direction of the induced current and explain clearly how you determined it.

16 6. (*a.*) Describe the construction and mode of operation of either the electric bell or the induction coil. Use a diagram.

(*b.*) The poles of a battery are connected by a wire 8 metres long having a resistance of ½ ohm per metre. If the E.M.F. of the battery is 7 volts and the internal resistance 10 ohms, find (1) the current and (2) the potential difference between two points on the wire which are 2 metres apart.

20 7. (*a.*) A body starts from rest under an acceleration of 10 cm. per second per second. Calculate:—

(1.) Its velocity after 10 seconds;

(2.) How far it goes in that time;

(3.) The force acting, if the body weighs 100 grams;

(4.) The work done by the force in 10 seconds.

(*b.*) Calculate the horse-power being exerted by a man weighing 165 pounds who climbs a vertical distance of 30 feet in 1 minute.

Grade XI., Normal Entrance.

GEOGRAPHY. (Time, 2 hours.)

[*Questions are of equal value. Answer* five *only.*]

1. (*a.*) Discuss fully the statement "The sun rises in the east and sets in the west."
   (*b.*) Make a diagrammatic representation of the chief winds and belts of calms of the earth, indicating direction by arrows. Account for the direction.
   (*c.*) How are mountains formed?
2. (*a.*) Describe the effects of the *glacial period* on the physical features of Canada.
   (*b.*) In the production of *sugar* why is the *beet* industry more than holding its own with the *cane* industry? Name the three greatest producers of cane-sugar.
   (*c.*) From what are the following obtained and where is the principal source of supply: *cocoa, turpentine, sago, rubber, currants, teak, allspice?*
3. *The Great Lakes.*
   (*a.*) Sketch a map (as large as your paper will permit) of the Great Lakes and the St. Lawrence River as far as Montreal. Show the connecting waters including the canals, and the important Canadian and American ports.
   (*b.*) Explain the influence of this water system on the development of Canada. What scheme to increase its economic value is under consideration? What menace is now agitating many of the large ports?
4. (*a.*) Describe the main *surface* features of Africa and explain their influence on the climate.
   (*b.*) Compare the Union of South Africa with the Argentine Republic as regards *latitude, physical features, sources of national wealth.*
5. (*a.*) What forms the primary highland of Europe? Locate the most fertile *plain* south of this highland and account for its fertility. What are the products of this plain?
   (*b.*) Locate *Fiume* and *Danzig* and state the importance of each.
   (*c.*) Write comprehensively on *one* of the following:—
   The Lowlands of Scotland.
   Famous Cathedrals of Europe.
   The Valley of the Rhine.
6. (*a.*) Locate Iraq (Mesopotamia). Describe its lines of communication and locate its chief cities. (Use a sketch-map.) What is its relation to the British Empire? Why has it commanded recent public attention?
   (*b.*) Describe the *climate* and the *trade* of New Zealand.
7. *The Mining Industry of British Columbia.*
   (*a.*) What are the principal minerals produced?
   (*b.*) Where are the most productive mines located?
   (*c.*) Distinguish between *lode* mining and *placer* mining.
   (*d.*) What is *coke?* For what purpose is it generally used?
   (*e.*) What is done at a *smelter?* Name a famous smelter on the Columbia River. What products are shipped from it?
   (*f.*) Give approximately the gross value of the mineral production for the year 1924. Which mineral was first in value of output?

Grade XII., Senior Matriculation.

ALGEBRA. (Time, 3 hours.)

Value.

14 1. Solve :—

(*a.*) $x^3y + xy^3 = 290$
$x^2 + y^2 = 29.$

(*b.*) $10x + 5\sqrt{3x^2 - 5x + 2} = 6x^2 + 6.$

14 2. (*a.*) The sum of the first 10 terms of a G.P. is 33 times the sum of the first 5 terms. Find the common ratio.

(*b.*) Show that $\frac{1+x^2}{(1-x)^2} = 1 + \frac{2x}{1+x^2} + \frac{4x^2}{(1+x^2)^2} + \ldots\ldots$ to infinity.

(*c.*) Find two numbers whose arithmetic mean is 25 and whose harmonic mean is 24.

14 3. (*a.*) If $\frac{a+b}{a-b} = \frac{2(b+c)}{3(b-c)} = \frac{4(c+a)}{5(c-a)}$, prove that $27a + 25b + 22c = 0$.

(*b.*) The expenses of an entertainment are partly constant and partly vary as the number of guests. For 80 guests the cost is \$160 and for 120 guests the cost is \$220. Find the cost for 200 guests.

14 4. (*a.*) One root of $x^2 - (k+1)x + 2k + 1 = 0$ exceeds the other by 2. Find the value of k and verify.

(*b.*) Prove that $x^2 - 2(a+2)x - a^2 = 0$ cannot have equal roots for any real value of a

14 5. (*a.*) Rationalize the denominator of $\frac{19}{\sqrt{50} + \sqrt{8} - \sqrt{3}}$.

(*b.*) Determine the limits of the value of $\frac{x^2 - 24}{2x - 11}$ for all real values of x.

15 6. (*a.*) In how many ways can 3 prizes be distributed among 20 pupils (1) if no pupil may receive two prizes; (2) if any pupil may receive all the prizes?

(*b.*) In a bag are 8 white and 6 red balls all different. In how many ways may 6 balls be drawn out so that in each case there may be at least 2 red balls?

15 7. (*a*) Find the coefficient of x^{25} in $\left(x^2 - \frac{1}{x}\right)^{20}$.

(*b.*) Reduce to its simplest form the 5th term of $\left(\frac{3a^2}{\sqrt[3]{b}} - \frac{a^{\frac{1}{2}}}{3b^2}\right)^7$.

(*c.*) If the coefficient of x^3 in the expansion of $(1-x)^n$ be (-1140) find n.

BIOLOGY. (Time, 3 hours.)

[*All questions are of equal value. Answer questions* 1 and 2 *and any* three *of the remainder. Illustrate your answers by carefully drawn diagrams.*]

1. Describe and make a diagrammatic drawing of the digestive tract and glands, *as seen from a left lateral aspect*, of *either* (*a*) the frog *or* (*b*) the clam.

2. (*a.*) Describe in detail the microscopic structure of one unicellular organism *and* of one simple multicellular organism.

(*b.*) State whether the organisms described belong to the plant or to the animal kingdom and give definite reasons for the classification in each case.

3. (*a.*) Define the terms *isogamy* and *heterogamy.*

   (*b.*) Describe the above processes in detail, using one member of the plant or animal kingdom in each case as an example.

4. Distinguish between *symbiosis*, *commensalism*, and *parasitism.* Give one example of each and in each case describe the parts played by the contributing organisms.

5. Write a note upon the chemical, physical, and biological properties of protoplasm.

6. (*a.*) What are the essential features of the process of respiration?

   (*b.*) Describe the process as carried on by man *and* by the yeast plant.

7. Write notes on the contributions made to biology by the following men: Harvey, Priestley, Darwin, Mendel, Pasteur.

CHEMISTRY. (Time, 3 hours.)

[*Questions are of equal value. Answer* ten *only.*]

[*Atomic weights and other data are given at end of paper.*]

1. A compound was analysed and found to have the following percentage composition: Hydrogen, 2.26%; oxygen, 62.88%; phosphorus, 34.85%. What is the simplest formula that represents the composition of this compound?

2. What do you understand by the terms "ionization," "equivalent weight," "normal solution," and "valence" as used in Chemistry?

3. The hydrogen formed by the action of 0.2431 gram of magnesium upon an excess of hydrochloric acid was mixed with the oxygen formed from the action of water upon 1.562 grams of sodium peroxide and the mixture exploded; what volume, if any, will the residual gas occupy, if measured over water at a temperature of 25° C. and a pressure of 771 mm. Hg.?

4. Explain briefly what part the following men played in building up the science of Chemistry: Joseph Priestly, Sir Humphrey Davy, and Sir William Ramsay.

5. Discuss the conditions under which the various forms of sulphur may exist.

6. How can the following substances be prepared commercially: metallic sodium, nitric oxide, ammonia?

7. Show by means of structural formulæ the relationship that exists between orthophosphoric acid, metaphosphoric acid, and pyrophosphoric acid.

8. Compare the compounds arsine, phosphine, and stibine as to their chemical and physical properties.

9. From the position of the elements potassium, silicon, lead, and bromine in the periodic arrangement of the elements according to Mendelejeff, what would you infer regarding their basic or acidic properties, their valence toward oxygen, and the stability of any compounds they may form the one with the other?

10. (*a.*) Explain the term "unsaturated hydrocarbons," illustrating by means of graphic formulæ.

    (*b.*) How can any two of the following substances be prepared in the laboratory: acetic acid, ether, ethyl acetate?

11. If you were given four solutions a, b, c, and d, suspected of containing (*a*) mercurous nitrate, (*b*) lead nitrate, (*c*) cadmium nitrate, (*d*) aluminium nitrate, how would you prove this supposition to be correct? Write chemical equations to illustrate your answer.

Atomic weights: Mg=24.32, H=1.008, Na=23.05, O=16.00, P=31.04.

Vapour pressure of water at 25° C.=23.5 mm.

ENGLISH COMPOSITION. (Time, 3 hours.)

Value.

10 1. Point out definitely the particular principles violated in the following, and recast in more satisfactory form:—

(*a.*) I went to a play last night. The play was Caesar and Cleopatra. It was written by Shaw. The play was very interesting. The characters were good. The speeches were witty. I spent a most enjoyable evening.

(*b.*) A dog, on hearing a peculiar noise and unable to understand exactly what it is, will at once start to find out the meaning of the noise.

(*c.*) The impulse of the English race toward moral development and self-conquest has manifested itself in Puritanism, and more powerfully than anywhere else.

(*d.*) We learned that it would take time to repair the automobile, and we walked to the nearest village, had some lunch, and we then returned to the scene of the accident, but the machine had not yet been repaired, and we tried to help the driver repair it, but our efforts were all in vain.

(*e.*) Let every Canadian uphold the Constitution and do their part in averting disorder.

10 2. Write a letter to the Secretary of the School Board in your place of residence applying for a position that you very much want on the teaching staff.

20 3. Discuss the principles of good paragraph structure as exemplified in the following, and indicate clearly the means of explicit reference:—

The incomparable French natural-historian and felicitous writer, Henri Fabre, has witnessed what I never have; he has seen the caterpillar build its case or cocoon. In the instance which he described it was the small grub of one of the Psyches. The first thing the creature did was to collect bits of felt or pith from the cast-off garment of its mother. These it tied together with a thread of its own silk, forming a band, or girdle, which it put around its own body, uniting the ends. This ring was the start and foundation of the sack in which it was to encase itself. The band was placed well forward, so that the insect could reach its edge, by bending its head up and down and around in all directions. Then it proceeded to widen the girdle by attaching particles of down to the edges. As the garment grew toward its head, the weaver crept forward in it, thus causing it to cover more and more of its body till in a few hours it covered all of it, and the sack was complete, a very simple process, and, it would seem, the only possible one. The head, with the flexible neck, which allowed it to swing through the circle, was the loom that did the weaving, the thread issuing from the spinneret on the lip. Did the silk issue from the other end of the body, as we are likely to think it does, the feat would be impossible. I suppose a woman might knit herself into her sweater in the same way by holding the ball of yarn in her bosom and turning the web around and fulling it down instead of turning her body—all but her arms; here she would be balked. To understand how a grub weaves itself a close-fitting garment, closed at both ends, from its own hair, or by what sleight of hand it attaches its cocoon to the end of a branch, I suppose one would need to witness the process.

60 4. Draw up a well-ordered plan and write an essay of at least two pages on *one* of the following:—

(*a.*) The Essentials in the Art of the Short Story.

(*b.*) The Influence of the Automobile on Modern Life.

(*c.*) The Value of Courtesy.

ENGLISH LITERATURE. (Time, 3 hours.)

Value.

14 1. Quote about a dozen consecutive lines from the poetry in the Anthology of Modern Verse that, in your opinion, illustrate the qualities of poetic diction. Indicate what these qualities are.

14 2. In about two pages, discuss the poetry of Walter de la Mare.

12 3. On the basis of your reading this year write an essay of about three hundred words on *one* of the following:—

(*a.*) "In poetry we are continually being re-born into new fairylands."

(*b.*) Poetry as "a homesickness of the spirit for a perfect world."

12 4. Contrast the manner of presenting two of the chief figures in "Electra" with that of presenting the two principals in "Julius Caesar," showing which characterization you regard as the more detailed and vivid.

12 5. Discuss:—

(*a.*) Sheridan's greatest asset as a dramatist.

(*b.*) The title of "The School for Scandal."

(*c.*) The dramatic purposes served by the "Auction Scene."

12 6. In two pages give your opinion of Nora's action at the end of A Doll's House. Support your answer with references to incidents throughout the play.

12 7. In which of the short stories studied this year do you think "a single impression" or "unity of effect" is best illustrated? Indicate the various means by which it is obtained.

12 8. Write concisely on each of the following:—

(*a.*) The contrast between father and son in Ethan Brand.

(*b.*) The use of suspense in The Gold Bug.

(*c.*) The character of the Sire de Malétroit.

FRENCH LANGUAGE. (Time, 3 hours.)

30 1. Traduction:—

This morning I received several letters, among which there was one from my brother, who has arrived at Marseilles. He will stay there until you come, unless you send him a telegram to tell him that you cannot leave London before the end of next week. If you do not yet know on which day and at what hour you can start, please write me a few lines. There is a good train at a quarter to nine in the morning which does the journey in twenty-four hours.

15 2. (*a.*) Répondez aux questions suivantes, en employant le pronom personnel qui correspond à chaque nom en italique. Ex.: Voyez-vous *le château?* Oui je *le* vois.

(*a.*) Avez-vous envoyé *les fleurs* à *la marchande?*

(*b.*) Vous ont-ils donné *de bonnes questions?*

(*c.*) Pensez-vous *à la leçon* et préparez-vous *le travail* pour *les élèves?*

(*d.*) Est ce qu' on vote pour *cet auteur?* il va entrer *à l'Académie.*

(*e.*) Pensez-vous *à la leçon* et préparez-vous *le travail* pour *les élèves?*

(*b.*) Mettez le pronom relatif convenable:—

(*a.*) C'est l'usine — je parlais et vers — nous allons.

(*b.*) Il dit — est vrai et c'est justement — on n'aime pas.

(*c.*) — de ces étudiants est le plus habile?

Value.

15 3. (*a.*) Donnez l'équivalent de:—

Nobody knows it. He reads well but he sings better. Here is a better song. Such a good book! Such a story! There will be about ten people. They never work. Speak louder.

(*b.*) Placez les mots suivants à l'endroit qui convient: savant, métier, élite, éclat, amateur.

This author belongs to the — in his own town, for he writes as a true — in his special subject, but in other matters he is only a sort of —; after all it is not the — of a writer to do everything with much —.

20 4. Mettez chaque verbe en italique au temps convenable selon la signification du texte—

Soulignez chaque verbe.

Autrefois les Parisiennes *aller* à pied par la ville et *sortir* tous les jours pour faire leurs emplettes. A une certaine époque chaque ménagère *faire* son marché elle-même, et *entreprendre* de montrer à sa fille à *diriger* la maison. Nos grand'mères *coudre* toujours les trousseaux qui étaient *requérir* pour leur mariage, restant *asseoir* pendant des heures. Mais après qu'on *inventer* tant de nouvelles améliorations et quand on *parvenir* à un perfectionnement général dans l'industrie et le commerce, tout *changer*. Maintenant, le plus souvent, madame *se servir* de son téléphone pour obtenir ce qu'elle *vouloir*. Il faut qu'on la *conduire* en auto, quand elle *sortir*, afin qu'elle *pouvoir* aller plus vite et il n'y a pas une seule jeune fille qui ne *savoir* plus du double de ce que *apprendre* son aïeule. Si l'on *vivre* comme jadis, serait-on plus heureux? Cela *valoir* il la peine d'y penser, de nos jours?

20 5. Français de:—

(*a.*) In the autumn of 1914, Canada sent to England about 3,300 soldiers.

(*b.*) She says she will never be able to speak French without making many mistakes.

(*c.*) Whatever you may think, I wish you to know it was I who did it.

(*d.*) I have been in the country for more than a week and I am still hungry.

(*e.*) We shall all go away as soon as we have finished.

FRENCH LITERATURE. (Time, 3 hours.)

20 1. Traduisez le passage suivant et faites quelques réflexions sur sa signification:—

Belle demande! Aux Grands Comédiens. Il n'y a qu'eux qui soient capables de faire valoir les choses; les autres sont des ignorants qui récitent comme l'on parle; ils ne savent pas faire ronfler les vers et s'arrêter au bel endroit; et le moyen de connaître où est le beau vers, si le comédien ne s'y arrête, et ne nous avertit par là qu'il faut faire le brouhaha?

35 2. Développez *deux* des sujets suivants (en français):—

(*a.*) Un vieux gentilhomme voit "Les Précieuses Ridicules" pour la première fois; il s'écrie: "Bravo Molière, voilà de la bonne comédie!" Description de l'incident, de la scène, de l'audience et de la salle.

(*b.*) L'hotel de Rambouillet, sa fondatrice, ses habitués; réceptions, influence.

(*c.*) Lettre d'un étranger qui a visité Paris, ses principaux monuments et rues, et qui a vécu quelque temps à la campagne et a vu plusieurs châteaux.

(*d.*) La journée d'un étudiant en médecine (études, salles d'opérations, terrasse d'un café, sports, une manifestation etc. . . .).

Value.

15 3. Mettez ces phrases en français moderne:—

(*a.*) Ce nécessaire va nous avancer les commodités de la conversation.

(*b.*) Veuillez donc nous tendre ici le conseiller des grâces.

(*c.*) L'embonpoint de ses plumes l'empêche d'entrer dans la salle basse.

(*d.*) Elle est tout à fait achevée, je n'entends rien à ce qu'elle dit.

(*e.*) C'est renchérir sur le ridicule que de parler ainsi.

20 4. Donnez en français une ou deux lignes d' explication sur *dix* des mots suivants: La comedia dell arte—un cadeau—la petite oie—du dernier bourgeois—une ruelle —sur le tapis—la carte de Tendre—un rabat—le petit coucher—Petits-Soins—sous la Coupole—un domino,—un bouquiniste—l'Illustre Théâtre—les tribunes.

10 5. Traduisez le paragraphe suivant:—

Quel meilleur symbole pourrait-on trouver des temps nouveaux dans ce qu'ils offrent de plus haut: la conscience professionnelle, la ferme décision de concilier coûte que coûte l'intérêt d'un seul et celui de tous, la minutie infinie dans le soin apporté au détail. Le progrès est vraiment émouvant lorsqu'il procède et qu'il témoigne d' une pareille volonté de mieux faire. Et que dites vous de la France, ce pays où l'on fauche encore à la main, où, dans certains coins reculés, on bat encore le blé aux fléaux mais où aussi, en revanche, on a su s'élever d'un bond jusqu' aux ultimes perfectionnements dans la science et l'art de guérir.

GERMAN GRAMMAR AND COMPOSITION. (Time, 3 hours.)

1. Put into German:—

20 (*a.*) One of the most interesting buildings on the Rhine is the old Mouse-tower, about which the following story is told. It is said to have been built in the tenth century by a miserly old bishop who was so cruel that he had had many poor people burned to death when they came to ask him for bread during a famine. But the mice which crept out of the ashes followed the wicked bishop into his castle and gave him no peace. In order to escape from them he had this castle built in the Rhine but the mice swam across and ate him up alive.

20 (*b.*) The American students had spent two months in Germany but when it was time to go back home they were sorry that they could not stay longer. They knew that there were many beautiful cities they had not seen and many interesting things they had not done. But they had learned a great deal about the country and the people. They decided that they would study German history the following year to prepare them for their next trip. For they had discovered that one can really enjoy a visit to a foreign land only if one knows something of the history and literature of the people.

10 2. Put into German:—

(1.) Karl, whose mother was a German, had spent a year in Germany.

(2.) The most interesting thing they saw was the Hamburg harbor.

(3.) They had to get up early, for their train was to leave at 5 a.m.

(4.) I finally succeeded in finding my friend.

(5.) He should have written to you, since he has not been able to come.

9 3. Construct sentences (third person singular) using the following verbs in the imperfect, pluperfect, and future tenses: aufſtehen; ſich erbarmen; unternehmen.

Value.

6 4. Rewrite in the passive :—

(1.) Mein Bruder ſchreibt ſeinem Freund einen Brief.

(2.) Man hat dieſes Gebäude im 18. Jahrhundert gebaut.

(3.) Viele Leute werden immer das Haus beſuchen.

6 5. Rewrite in indirect speech :—

(1.) Er antwortete : „Ich kann das jetzt nicht tun."

(2.) Fritz ſagte : „Mein Onkel wird uns nach Berlin begleiten."

(3.) Sie erwiderte : „Ich bin letzte Woche ſehr krank geweſen."

9 6. Put into German :—

(1.) If the weather is fine tomorrow, we shall take a trip up the Rhine.

(2.) If you would stay longer in Germany, you could learn to speak German correctly.

(3.) They would have gone to Heidelberg if Paul had not had to go to Munich.

20 7. Write in German a description of a trip. (At least 20 lines.)

GEOMETRY. (Time, 3 hours.)

[*Omit any* one *of the* first four *questions.*]

14 1. Show how to divide a given line internally and externally in medial section.

14 2. If the vertical angle of a triangle be bisected by a straight line which also cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base together with the square on the straight line which bisects the angle.

14 3. ABC is a triangle having AB and AC produced to D and E, respectively, so that BD = CE. The line joining DE meets BC produced at F. Prove AB : AC = EF : DF.

14 4. A and C are fixed points on the circumference of a circle. B is any other point on the circle and the bisector of the angle ABC cuts the circle at D. Show that the ratio AB + BC : BD is constant.

[N.B.—*Graph paper is supplied.—Accurate diagrams must be drawn for questions* 5 *and* 6.]

5. Given the triangle A (–3, 2), B (7, 2), C (3, 10), find the following :—

4 (*a.*) The equation of BC.

4 (*b.*) The co-ordinates of the centroid.

8 (*c.*) The equation of the perpendicular AD drawn from A to BC, and the ratio into which D divides BC.

4 (*d.*) The area of the triangle.

6 (*e.*) The locus of the vertices of the triangles described on AB having the same area as ABC. (This is to be found analytically.)

8 (*f.*) The equation of the circumscribing circle, its radius, and the co-ordinates of its centre.

12 6. (*a.*) Find the equation of the line through (3, – 4) that cuts off equal intercepts from the axes. Give the two solutions according as the intercepts have the same or opposite signs.

(*b.*) Find the perpendicular distance from (– 2, 3) to the line $\frac{2x}{3} - \frac{y}{2} = 6$.

12 7. (*a.*) Derive the condition that one line shall be perpendicular to another.

(*b.*) Show that $y = mx \pm r\sqrt{1+m^2}$ is always a tangent to $x^2 + y^2 = r^2$.

HISTORY. (Time, 3 hours.)

[*Answer any* five *questions.*]

Value.

20 1. For what reasons did European nations send out colonists to America?

2. Compare Spanish and British colonial efforts under the following heads:—

5 (*a.*) Commercial gain.

5 (*b.*) Religious policy.

5 (*c.*) Government.

5 (*d.*) Treatment of the natives.

3. Write a short account of the explorations of:—

5 (*a.*) Jaques Cartier.

5 (*b.*) Champlain.

5 (*c.*) La Salle.

5 (*d.*) La Vérendrye.

20 4. Sketch the relations of Church and State in Canada during the French Regime.

12 5. Why was a conflict between France and Britain in North America inevitable?

4 (*a.*) Estimate the importance, in this conflict, of the Great Lakes.

4 (*b.*) Estimate the importance, in this conflict, of the Ohio Valley.

15 6. (*a.*) Account for the changes of British policy towards Canada in 1763, 1774, and 1791.

5 (*b.*) Was the Constitutional Act a wise solution of the Canadian problem?

7. Compare the attitude of the following towards Canadian self-government:—

5 (*a.*) Sydenham;

5 (*b.*) Bagot;

5 (*c.*) Metcalfe;

5 (*d.*) Elgin.

16 8. (*a.*) Sketch the movement for Confederation in the Maritime Provinces and in the Province of Canada.

4 (*b.*) Why did Newfoundland stay out?

20 9. "The history of the Canadian West is the history of the Hudson's Bay Company." Discuss this statement with special reference to the Red River Colony and British Columbia.

20 10. To what extent has Confederation solved the race question in Canada?

LATIN AUTHORS. (Time, 3 hours.)

15 1. Translate:—

Quid igitur ait Hortensius? Si uni omnia tribuenda sint, dignissimum esse Pompeium, sed ad unum tamen omni deferri non oportere. Obsolevit iam ista oratio re multo magis quam verbis refutata. Nam tu idem, Q. Hortensi, multa pro tua summa copia ac singulari facultate dicendi et in senatu contra virum fortem, A. Gabinium, graviter ornateque dixisti, cum is de uno imperatore contra praedones constituendo legem promulgasset, et ex hoc ipso loco permulta item contra eam legem verba fecisti.

(*a.*) Explain the construction of *sint* and *multo*.

(*b.*) Explain the references in *Hortensius, Gabinium, praedones*.

(*c.*) Give the chief facts in Cicero's life, with dates.

Value.

15 2. Translate:—

Ac ne illud quidem vobis neglegendum est quod mihi ego extremum proposueram, cum essem de belli genere dicturus, quod ad multorum bona civium Romanorum pertinet; quorum vobis pro vestra sapientia, Quirites, habenda est ratio diligenter. Nam et publicani, homines honestissimi atque ornatissimi, suas rationes et copias in illam provinciam contulerunt, quorum ipsorum per se res et fortunae vobis curae esse debent. Etenim, si vectigalia nervos esse rei publicae semper duximus, eum certe ordinem qui exercet illa firmamentum ceterorum ordinum recte esse dicemus.

(*a.*) Explain the construction of *vobis* (first line) and *curae*.

(*b.*) Write explanatory notes (not grammatical) on *quod . . . extremum proposueram*, *publicani*.

18 3. Translate:—

Protinus aërii mellis caelestia dona
exsequar: hanc etiam, Maecenas, aspice partem.
Admiranda tibi levium spectacula rerum
magnanimosque duces totiusque ordine gentis
mores et studia et populos et proelia dicam.
In tenui labor; at tenuis non gloria, si quem
numina laeva sinunt auditque vocatus Apollo.
Principio sedes apibus statioque petenda,
quo neque sit ventis aditus, nam pabula venti
ferre domum prohibent, neque oves haedique petulci
floribus insultent, aut errans bucula campo
decutiat rorem, et surgentes atterat herbas.
Absint et picti squalentia terga lacerti
pinguibus a stabulis, meropesque aliaeque volucres
et manibus Procne pectus signata cruentis.

(*a.*) Explain the construction of *apibus* (l. 8), *insultent* (11), *campo* (11), *terga* (13).

(*b.*) Explain the references in *Maecenas*, *Procne*.

(*c.*) What does *etiam* (l. 2) imply?

17 4. Translate:—

Quis deus hanc, Musae, quis nobis extudit artem?
Unde nova ingressus hominum experientia cepit?
Pastor Aristaeus fugiens Peneia Tempe
amissis, ut fama, apibus morboque fameque
tristis ad extremi sacrum caput astitit amnis
multa querens, atque hac affatus voce parentem:
'Mater, Cyrene mater, quae gurgitis huius
ima tenes, quid me praeclara stirpe deorum,
(si modo, quem perhibes, pater est Thymbraeus Apollo)
invisum fatis genuisti? Aut quo tibi nostri
pulsus amor? Quid me caelum sperare iubebas?
En etiam hunc ipsum vitae mortalis honorem,
quem mihi vix frugum et pecudum custodia sollers
omnia temptanti extuderat, te matre relinquo.
Quin age et ipsa manu felices erue silvas,
fer stabulis inimicum ignem atque interfice messes,
ure sata, et duram in vites molire bipennem,
tanta meae si te ceperunt taedia laudis.'

(*a.*) Explain the construction of *stirpe* (l. 8), *nostri* (10), *te* (14).

(*b.*) Scan (indicating the chief caesuras) the three lines beginning: *unde . . .*, *si modo . . .*, *en . . .*

(*c.*) To what does Vergil refer in *hanc . . . artem*?

Value.

20 5. Translate:—

Anna refert: 'O luce magis dilecta sorori,
solane perpetua maerens carpere iuventa,
nec dulces natos Veneris nec praemia noris?
id cinerem aut manes credis curare sepultos?
Esto, aegram nulli quondam flexere mariti,
non Libyae, non ante Tyro; despectus Iarbas
ductoresque alii, quos Africa terra triumphis
dives alit: placitone etiam pugnabis amori?
nec venit in mentem, quorum consederis arvis?
Hinc Gaetulae urbes, genus insuperabile bello,
et Numidae infreni cingunt et inhospita Syrtis,
hinc deserta siti regio lateque furentes
Barcaei. Quid bella Tyro surgentia dicam
germanique minas?
Dis equidem auspicibus reor et Iunone secunda
hunc cursum Iliacas vento tenuisse carinas.

(*a.*) Explain the construction of *sorori* (l. 1), *Libyae* (6), *dis* (15).

(*b.*) Show how scansion differentiates the cases of *sola* and *perpetua* in the second line.

15 6. Translate:—

Tum virgam capit: hac animas ille evocat Orco
pallentes, alias sub Tartara tristia mittit,
dat somnos adimitque, et lumina morte resignat.
Illa fretus agit ventos, et turbida tranat
nubila. Iamque volans apicem et latera ardua cernit
Atlantis duri, caelum qui vertice fulcit,
Atlantis, cinctum assidue cui nubibus atris
piniferum caput et vento pulsatur et imbri,
nix umeros infusa tegit, tum flumina mento
praecipitant senis, et glacie riget horrida barba.
Hic primum paribus nitens Cyllenius alis
constitit; hinc toto praeceps se corpore ad undas
misit, avi similis, quae circum litora, circum
piscosos scopulos humilis volat aequora iuxta.

(*a.*) Write on the figures of speech in this passage.

LATIN PROSE COMPOSITION, SIGHT TRANSLATION, AND ROMAN HISTORY.

A. LATIN PROSE COMPOSITION. (Time, 3 hours.)

50 Translate into Latin:—

(*a.*) Both you and I have been made consuls by the votes and kindness of the Roman people.

(*b.*) I had rather keep my promises than be the richest man in the world.

(*c.*) He was an excellent youth, and a most faithful friend to me; he had much conversation with me about the future.

(*d.*) No one can with a good conscience deny that your brother returned home in safety by a miraculous interposition.

(*e.*) He was the first to deny the existence of gods.

(*f.*) Procrastination in showing gratitude is never praiseworthy; for myself I prefer returning kindness to being under an obligation.

Value.

(*g.*) The cavalry charged so fiercely that had not night interfered with the contest the enemy would have turned their backs.

(*h.*) He made it his aim to avoid injuring any one of his subjects, but to consult the good of the whole nation.

(*i.*) We were within a very little of being all killed, some of us pierced by the enemy's darts, others cut off either by famine or disease.

(*j.*) And therefore do not object to endure everything in behalf of your suffering country and your exiled friends.

B. SIGHT TRANSLATION.

35 L. Scipio, frater Africani, infirmo erat corpore; tamen consul, legato fratre, contra Antiochum missus est. Cum in Asiam advenisset, ad duo *ferme* milia ab hoste castra posuit. Antiochus coepit aciem instruere, nec Scipio detrectavit certamen. Cum autem duae acies in conspectu essent, coorta nebula *caliginem* dedit, quae nihil admodum Romanis, eadem plurimum *regiis* nocuit; nam humor gladios aut pila Romanorum non *hebetavit*, arcus vero, quibus Antiochi milites utebantur, fundasque et jaculorum *amenta* emollierat. Itaque fusus est regis exercitus fugatusque. Ipse Antiochus, cum paucis fugiens, in Lydiam concessit. Tum Asiae urbes victori se dediderunt. L. Scipio Romam reversus ingenti gloria triumphavit, et Asiatici cognomen accepit.

ferme—about; *caliginem*—mist; *regiis*—(militibus) understood; *hebetavit*—dulled; *amenta*—thongs.

C. ROMAN HISTORY.

15 1. (*a.*) Write a short account of the decline of Greek power in Italy and Sicily.

(*b.*) Describe the rôle of the Greeks in Italian history.

2. Give a short history of the war in Spain, 218–207 B.C.

PHYSICS. (Time, 3 hours.)

[*Answer question* one *and any* eight *of the remainder.*]

1. A uniform accelerating force acts on a mass of 1,000 grams, giving it a velocity of 3 metres per second in 8 seconds from rest. Find:—

5 (*a.*) The acceleration;

4 (*b.*) The force;

3 (*c.*) The distance traversed;

3 (*d.*) The work done.

5 Describe some device by which you might accomplish this, making due allowance for probable friction, or other resistance.

4 2. (*a.*) A weight of 50 pounds is suspended from two points, A and B, on a horizontal ceiling. The cord from A to the mass is 8 ft. long and that from B is 4 ft. long. A is 8 ft. from B. Find, graphically, the pull in each cord. (A free-hand drawing with distances estimated roughly to scale is sufficient if drawing instruments are not at hand.)

2 (*b.*) Define mechanical advantage. A load is lifted through a system of pulleys.

1 What is the relation, theoretically, of the amount of work contributed to the machine to the actual work accomplished?

1 What name is given to the actual ratio of these two amounts of work?

2 What reasons might we have for using such a device instead of lifting the load directly?

Value.

5 3. (*a.*) How is the height of a barometer affected by (1) the diameter of the bore of the tube; (2) the pressure of air above the mercury in the tube; (3) being suspended outdoors or in a warm room; (4) being carried up a mountain?

5 (*b.*) How do we explain the fact that bodies ordinarily expand when heated?

5 4. (*a.*) Show that 1,000 grams of copper at 400° C. would raise 200 grams of water at 20° C. to 100° C. and convert some of it to steam. How many grams would be thus converted? (Sp. ht. of copper .094.)

5 (*b.*) Define mechanical equivalent of heat and give its value. Why must the temperature of the boiler of a locomotive be over 100° C.?

5 5. (*a.*) Find the frequencies of two tuning-forks, each of which would be in resonance with an air column one foot long and closed at one end. (Take the velocity of sound as 1,100 ft. per sec.)

5 (*b.*) From the phenomena studied in sound, give an example of each of the following: harmonic overtone, interference, Doppler's Principle.

3 6. What differences in character are there between sound waves and those of light?

3 What similarity and what difference among waves of light, radiant heat, and wireless telegraphy?

4 Give a reasonable wave length for each of these four types of waves.

3 7. (*a.*) Explain very briefly, with the aid of a simple diagram, how the power of a lamp may be measured.

4 (*b.*) An object is 30 cm. from a lens and its image is found to be 20 cm. from the lens, on the same side as the object. Find, from the lens formula, the kind of lens it must be and its focal length.

3 Then draw a diagram, roughly to scale, showing object, image, and lens.

7 8. (*a.*) Draw a diagram showing what happens to a ray of sunlight in a small drop of water in a cloud where a rainbow appears. Give names to the different phenomena which contribute to the result.

3 (*b.*) A boy runs toward a plane mirror at the rate of 20 ft. per second. How rapidly does he approach his image?

5 9. (*a.*) Draw a diagram of a straight bar magnet showing one complete line of force, with arrows at different points showing its direction. What is the significance of this direction?

5 (*b.*) Using our conception that electrons, only, move in a solid conductor, tell what happens as a rod of sealing-wax which has been rubbed with flannel is brought close to an insulated conductor and then as the conductor is touched with the finger while the wax is near it.

10. A 50-watt lamp operates on a 110-volt circuit. Find:—

2 (*a.*) Its resistance;

2 (*b.*) Its current;

3 (*c.*) How long it could be used for one dollar with electricity at 5 cents per kilowatt-hour; and

3 (*d.*) The number of calories of heat it generates every second.

TRIGONOMETRY. (Time, 3 hours.)

12 1. (*a.*) If $\sin\theta = .5$, find the value of $1 + \tan^2\theta$.

(*b.*) Find the numerical value of $\frac{4}{3}\cot^2 30° + 3\sin^2 60° - 2\operatorname{cosec}^2 60° - \frac{3}{4}\tan^2 30°$.

(*c.*) Prove $(\tan\theta + 2)(2\tan\theta + 1) = 5\tan\theta + 2\sec^2\theta$.

13 2. (*a.*) From the top of a cliff, 200 feet high, the angles of depression of the top and bottom of a tower are observed to be 30° and 60° respectively. Find the height of the tower.

value.

(*b.*) Prove $(\sin a + \operatorname{cosec} a)^2 + (\cos a + \sec a)^2 = \tan^2 a + \cot^2 a + 7$.

13 3. (*a.*) Solve $2 \sin^2 x + \sqrt{3} \cos x + 1 = 0$.

(*b.*) Solve $\tan 5\ \theta = \cot 2\ \theta$.

14 4. (*a.*) In any triangle prove $b^2 = c^2 + a^2 - 2ca \cos B$.

(*b.*) In any triangle prove $\sin \frac{A}{2} = \sqrt{\frac{(s-b)(s-c)}{bc}}$.

12 5. Prove $\frac{\sin a + \sin \beta}{\sin a - \sin \beta} = \frac{\tan \frac{a+\beta}{2}}{\tan \frac{a-\beta}{2}}$.

18 6. If $a = 4584$, $b = 5140$, $c = 3624$, find A, using formula for $\tan \frac{A}{2}$,

given $\log 1.534 = 0.1858$ L tan 30° 5′ = 9.7628
$\log 2.090 = 0.3201$
$\log 3.050 = 0.4843$
$\log 6.674 = 0.8244$

18 7. If $b = 16$, $c = 25$, B = 33° 15′, prove that the triangle is ambiguous and find the other angles, having given

$\log 2 = 0.30103$ L sin 33° 15′ = 9.73901
L sin 58° 56′ = 9.93276
L sin 58° 57′ = 9.93283

VICTORIA, B.C.:
Printed by CHARLES F. BANFIELD, Printer to the King's Most Excellent Majesty.
1926.