PART III.

APPENDICES.

APPENDIX A.

RESULTS OF THE HIGH SCHOOL AND UNIVERSITY MATRICULATION EXAMINATIONS, 1925.

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

Student.	High School.	Percentage.
Harriet Muriel Embling Daniels	South Vancouver	88.6
Joshua James M. Jacob	King George, Vancouver	86.5
Mary Cicelia George	South Burnaby	85.9
John Hotchkiss Stewart Reid	Duke of Connaught, New Westminster	85.2
Olivia Dingwall Mouat	Nelson	84.3

Honourable mention is made of the following candidates: John Ross Tolmie, South Vancouver High School; Howard Graves Nicholson, King George High School, Vancouver; James R. Daniels, Rocklands Academy, Victoria.

The gold medal awarded annually by the Hudson's Bay Company to the candidate obtaining the highest standing in the Third-year Commercial Examination was won by Mary Elizabeth Clark, Victoria High School, who obtained 76.7 per cent.

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

District.	Student.	High School.	Percentage.
No. 1	Margaret Theresa Gourlay	Oak Bay	79.3
No. 2	Irene May Smith	Courtenay	83.3
No. 3	Joshua James M. Jacob	King George, Vancouver	86.5
No. 4	John Ross Tolmie	South Vancouver	87.0
No. 5	Helen Jean Reed	Penticton	84.0
No. 6	Olivia Dingwall Mouat	Nelson	84.3

A Scholarship of $150 was awarded to Harriet Muriel Embling Daniels, South Vancouver High School, the student obtaining the highest standing in the Province in the Junior Matriculation Examination.

A Scholarship of $75 was awarded to Mary Hamilton Watts, 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.	Third-year Commercial.	Third-year Household Science.	Third-year Technical.	Normal Entrance.	Junior Matriculation.	Normal Entrance and Junior Matriculation.	Senior Matriculation.	Total.
Abbotsford (High)	....	....	....	....	....	3	1	4	....	8
Agassiz (High)	....	....	....	....	....	....	7	....	....	7
Alert Bay:										
Mitchell Bay (Public)	1	....	....	....	....	....	....	....	....	1
Armstrong:										
High	1	....	....	....	....	6	1	....	....	8
Private Study	....	....	....	....	....	1	....	....	....	1
Brentwood College	....	....	....	....	....	....	12	....	5	17
Bridgeport (High)	....	....	....	....	....	4	3	3	....	10
Burnaby:										
North (High)	....	....	....	....	....	....	13	....	....	13
South (High)	....	....	....	....	....	8	18	....	....	26
Burns Lake:										
Francois Lake (Public)	1	....	....	....	....	....	....	....	....	1
South Bank (Public)	1	1	....	....	....	....	....	....	....	2
Cassidy (Superior)	....	2	....	....	....	....	....	....	....	2
Chase (Superior)	3	1	....	....	....	....	....	....	....	4
Chilliwack (High)	....	....	....	....	....	15	16	1	....	32
Coalmont (Public)	2	....	....	....	....	....	....	....	....	2
Courtenay:										
Comox (Public)	1	....	....	....	....	....	....	....	....	1
Courtenay (High)	....	....	....	....	....	3	6	....	....	9
Private Study	....	1	....	....	....	....	....	....	1	2
Cranbrook:										
Cranbrook (High)	....	....	....	....	....	4	13	3	....	20
Fort Steele (Public)	3	....	....	....	....	....	....	....	....	3
Creston:										
Camp Lister (Public)	2	....	....	....	....	....	....	....	....	2
Creston (High)	....	....	....	....	....	4	....	....	....	4
Cumberland (High)	....	....	....	....	....	....	5	....	....	5
Dewdney (Superior)	2	1	....	....	....	....	....	....	....	3
Duncan:										
Duncan (High)	....	....	....	....	....	1	5	1	....	7
Shawnigan Lake (Private)	4	1	....	....	....	....	3	....	....	8
Private Study	....	....	....	....	....	1	....	....	....	1
Enderby:										
Enderby (High)	....	....	....	....	....	....	3	....	....	3
Grindrod (Public)	1	....	....	....	....	....	....	....	....	1
Esquimalt	....	....	....	....	....	1	3	....	....	4
Fernie	....	....	....	....	....	2	5	3	....	10
Ganges Harbour:										
Public	6	....	....	....	....	....	....	....	....	6
Formby House (Private)	1	....	....	....	....	....	....	....	....	1
Golden (Private Study)	....	....	....	....	....	....	1	....	....	1
Grand Forks:										
High	....	....	....	....	....	7	....	3	....	10
Paulson (Public)	2	....	....	....	....	....	....	....	....	2
Private Study	....	....	....	....	....	1	....	....	....	1
Greenwood (Superior)	3	....	....	....	....	....	....	....	....	3
New Hazelton (Public)	....	1	....	....	....	....	....	1	....	2
Howe Sound:										
High	....	....	....	....	....	1	....	3	....	4
Bowen Island (Public)	1	....	....	....	....	....	....	....	....	1
Ioco (Superior)	5	4	....	....	....	....	....	....	....	9
Kamloops:										
High	....	....	....	....	....	3	14	....	5	22
Heffley Creek (Public)	2	....	....	....	....	....	....	....	....	2
St. Ann's (Private)	1	....	....	....	....	....	....	....	....	1
Private Study	....	....	....	....	....	2	1	....	....	3

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

Examination Centre.	Grade IX.	Grade X.	Third-year Commercial.	Third-year Household Science.	Third-year Technical.	Normal Entrance.	Junior Matriculation.	Normal Entrance and Junior Matriculation.	Senior Matriculation.	Total.
Kaslo (High)	....	....	....	....	....	4	4	....	....	8
Kelowna (High)	....	....	....	....	....	6	4	2	....	12
Kitsumgallum:										
Kitsumgallum (Superior)	1	2	....	....	....	....	....	....	....	3
Pacific (Public)	....	1	....	....	....	....	....	....	....	1
Ladner (High)	....	....	....	....	....	1	1	....	....	2
Ladysmith (High)	....	....	....	....	....	1	4	....	1	6
Langley:										
High	....	....	....	....	....	1	....	6	....	7
Private Study	....	....	....	....	....	2	....	....	....	2
Maple Ridge:										
MacLean (High)	....	1	....	....	....	6	6	....	....	13
Ruskin (Superior)	1	....	....	....	....	....	....	....	....	1
Private Study	....	....	....	....	....	1	....	....	....	1
Matsqui (High)	....	....	....	....	....	....	1	....	....	1
Merritt (High)	....	....	....	....	....	1	1	....	....	2
Mission	....	....	....	....	....	2	....	....	....	2
Nakusp:										
High	3	6	....	....	....	....	....	....	....	9
Private Study	....	....	....	....	....	....	1	....	....	1
Nanaimo	....	....	....	....	....	1	17	10	....	28
Nelson:										
High	....	....	....	....	....	5	27	2	....	34
St. Joseph's (Private)	....	....	....	....	....	1	....	....	....	1
Private Study	....	....	....	....	....	1	....	....	....	1
New Denver:										
High	....	....	....	....	....	....	1	....	....	1
Three Forks (Public)	2	....	....	....	....	....	....	....	....	2
New Westminster:										
Duke of Connaught (High)	....	....	....	....	....	10	47	2	....	59
T. J. Trapp (Technical)	....	....	....	....	4	....	2	....	....	6
Columbian College (Private)	1	1	....	....	....	1	....	....	....	3
St. Ann's (Private)	....	....	....	....	....	2	1	....	....	3
Private Study	....	....	....	....	....	2	....	....	....	2
Oak Bay:										
High	....	....	....	....	....	4	30	....	....	34
Cranleigh House (Private)	....	....	....	....	....	....	1	....	....	1
St. Michael's (Private)	6	....	....	....	....	....	....	....	....	6
Ocean Falls (High)	....	....	....	....	....	....	3	....	....	3
Oliver:										
Superior	1	2	....	....	....	....	....	....	....	3
Osoyoos (Public)	1	....	....	....	....	....	....	....	....	1
Oyama:										
High	....	2	....	....	....	3	2	....	....	7
Private Study	....	....	....	....	....	1	....	....	....	1
Parksville (Superior)	3	....	....	....	....	....	....	....	....	3
Peachland (High)	....	....	....	....	....	1	1	....	....	2
Penticton	....	....	....	....	....	1	6	1	12	20
Point Grey:										
King George V. (High)	....	....	....	....	....	2	34	1	....	37
Lord Byng (High)	....	....	....	....	....	2	14	....	....	16
Prince of Wales (High)	....	....	....	....	....	....	42	....	....	42
Sacred Heart (Private)	....	....	....	....	....	....	....	....	2	2
Private Study	....	....	....	....	....	2	....	....	....	2
Port Alberni (High)	....	....	....	....	....	....	1	....	1	2
Port Coquitlam:										
High	....	....	....	....	....	1	2	1	....	4
Pitt Meadows (Public)	3	....	....	....	....	....	....	....	....	3

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

Examination Centre.	Grade IX.	Grade X.	Third-year Commercial.	Third-year Household Science.	Third-year Technical.	Normal Entrance.	Junior Matriculation.	Normal Entrance and Junior Matriculation.	Senior Matriculation.	Total.
Port Moody (Superior)	2	....	....	....	....	....	....	....	....	2
Powell River:										
High	....	....	....	....	....	1	2	....	....	3
Whaletown (Public)	1	....	....	....	....	....	....	....	....	1
Prince George:										
High	....	....	....	....	....	1	2	....	....	3
Loos (Public)	1	....	....	....	....	....	....	....	....	1
Prince Rupert (High)	....	....	....	....	....	7	10	....	4	21
Princeton (High)	....	....	....	....	....	....	1	....	....	1
Procter (Superior)	3	....	....	....	....	....	....	....	....	3
Quesnel (Superior)	2	2	....	....	....	....	....	....	....	4
Revelstoke:										
High	....	....	....	....	....	2	14	1	....	17
Private Study	....	....	....	....	....	1	2	....	....	3
Robson:										
High	....	....	....	....	....	....	1	....	....	1
Private Study	....	....	....	....	....	1	....	....	....	1
Rolla:										
Rolla (Public)	4	2	....	....	....	....	....	....	....	6
South Dawson Creek (Public)	1	....	....	....	....	....	....	....	....	1
Rossland:										
High	....	....	....	....	....	2	4	3	....	9
Private Study	....	....	....	....	....	3	1	....	....	4
Ruskin (Superior)	4	....	....	....	....	....	....	....	....	4
Rutland (Superior)	2	3	....	....	....	....	....	....	....	5
Saanich, North (Superior)	5	....	....	....	....	....	....	....	....	5
Salmon Arm:										
High	....	....	....	....	....	2	2	10	....	14
Private Study	....	....	....	....	....	....	....	....	1	1
Silverton (Superior)	6	2	....	....	....	1	1	2	....	12
Slocan (High)	....	....	....	....	....	2	....	....	....	2
Smithers:										
High	....	....	....	....	....	....	1	....	....	1
Forestdale (Public)	1	....	....	....	....	....	....	....	....	1
Sooke (Superior)	5	1	....	....	....	....	....	....	....	6
Squamish (Public)	2	....	....	....	....	....	....	....	....	2
Stewart (Superior)	2	1	....	....	....	....	....	....	....	3
Summerland (High)	....	....	....	....	....	2	2	1	....	5
Surrey:										
High	....	....	....	....	....	5	4	....	....	9
Private Study	....	....	....	....	....	....	1	....	....	1
Trail:										
High	....	....	....	....	....	3	7	....	....	10
Private Study	....	....	....	....	....	1	....	....	....	1
Union Bay (Public)	4	....	....	....	....	....	....	....	....	4
Vananda (Public)	2	1	....	....	....	....	....	....	....	3
Vancouver:										
Britannia (High)	....	....	3	....	....	13	46	1	....	63
High School of Commerce	....	....	16	....	....	....	....	....	....	16
King Edward (High)	....	....	....	8	....	8	63	4	....	83
King George (High)	....	....	....	....	....	....	65	....	....	65
Kitsilano (High)	....	....	....	....	....	6	53	....	....	59
Technical (High)	....	....	....	....	6	....	11	....	....	17
Geo. V. (High), Point Grey	....	....	1	....	....	....	....	....	....	1
Britannia Mines (Public)	2	....	....	....	....	....	....	....	....	2
School of Pharmacy (Private)	....	....	....	....	....	1	13	1	7	22
Sacred Heart (Private)	....	....	....	....	....	....	1	....	....	1
Crofton House (Private)	....	15	....	....	....	....	14	....	....	29

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

Examination Centre.	Grade IX.	Grade X.	Third-year Commercial.	Third-year Household Science.	Third-year Technical.	Normal Entrance.	Junior Matriculation.	Normal Entrance and Junior Matriculation.	Senior Matriculation.	Total.
Vancouver—*Continued.*										
Sprott-Shaw (Private)	....	....	....	....	....	....	....	....	1	1
Shaughnessy (Private)	3	....	....	....	....	....	....	....	....	3
St. Ann's (Private)	....	....	....	....	....	1	2	....	....	3
St. Marina's (Private)	....	1	....	....	....	....	1	....	....	2
Vancouver College (Private)	....	....	....	....	....	....	7	....	....	7
Private Study	....	....	....	2	....	8	12	....	....	22
Vancouver, North:										
High	....	....	....	....	....	5	26	....	....	31
Kingsley (Private)	4	....	....	....	....	....	....	....	....	4
Private Study	....	....	....	....	....	1	1	....	....	2
Vancouver, South:										
High	....	....	3	....	....	18	58	1	....	80
Private Study	....	....	....	....	....	4	1	....	....	5
Vancouver, West (High)	....	....	....	....	....	1	8	....	....	9
Vanderhoof:										
Superior	1	....	....	....	....	3	....	....	....	4
Private Study	....	....	....	....	....	1	....	....	....	1
Vernon:										
High	....	....	....	....	....	6	15	....	8	29
Lumby (Public)	2	....	....	....	....	....	....	....	....	2
St. Michael's (Private)	2	3	....	....	....	....	3	....	....	8
Preparatory (Private)	2	4	....	....	....	....	....	....	....	6
Private Study	1	....	....	....	....	1	1	....	....	3
Victoria:										
High	....	....	10	....	....	22	68	....	....	100
Rocklands (Private)	....	....	....	....	....	2	....	....	....	2
St. Ann's (Private)	....	....	....	....	....	3	3	....	....	6
St. George's (Private)	....	....	....	....	....	....	1	....	....	1
St. Louis (Private)	....	....	....	....	....	....	1	....	....	1
St. Margaret's (Private)	9	8	....	....	....	....	5	....	....	22
University (Private)	1	....	....	....	....	....	....	....	....	1
Private Study	....	1	....	....	....	8	7	....	....	16
Westbank Townsite (Superior)	1	....	....	....	....	....	....	....	....	1
Totals	140	71	33	10	10	278	924	71	48	1,585

HIGH SCHOOL ENTRANCE EXAMINATION, JUNE, 1925.

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:—

Name.	School.	District.
Alice Lee	Girls' Central, Victoria	No. 1
Florence L. Ferguson	Quennell School, Nanaimo	No. 2
Nobuichi Yamaoke	Model, Vancouver	No. 3
Agnes P. Jamieson	Richard McBride, South Vancouver	No. 4
G. Sheldon Rothwell	Central, New Westminster	No. 5
Leslie A. Cameron	Lady Byng, Ashcroft	No. 6
Dorothy K. Mason	Armstrong and Spallumcheen Consolidated	No. 7
Robert F. Shaw	Central, Revelstoke	No. 8
Thomas H. Miard	Central, Fernie	No. 9
Roberta Bogle	Dome Creek	No. 10

NUMBER OF SUCCESSFUL CANDIDATES AT EACH SCHOOL.

Centre.	School.	Promoted on Recommendation.	Passed Examination.	Total.
Abbotsford	Poplar (Matsqui)	....	3	3
	Abbotsford	....	6	6
Agassiz	Agassiz	....	19	19
	Harrison River	....	2	2
Alberni	Alberni	....	10	10
	Port Alberni	6	5	11
	Bamfield	....	5	5
	Bainbridge	....	1	1
	Beaver Creek	....	1	1
	Cherry Creek Valley	....	1	1
	Kildonan	....	3	3
Alert Bay	Beaver Cove	....	4	4
	Boys' Industrial	....	2	2
	Girls' Home	....	1	1
Alice Arm	Alice Arm	....	1	1
Armstrong	Armstrong and Spallumcheen Consolidated	15	8	23
	Hendon	....	2	2
	Salmon Valley	....	1	1
Arrowhead	Beaton	....	1	1
	Crawford Creek	....	1	1
	Galena Bay	....	2	2
	Hall's Landing	....	1	1
	Sproat	....	1	1
Ashcroft	Ashcroft	....	1	1
Athalmer	Athalmer	....	1	1
	Wilmer	....	1	1
	Windermere	....	2	2
Barkerville	Barkerville	....	1	1
Bella Coola	Lower Bella Coola	....	1	1
	Mackenzie	....	3	3
Birken	Birken	....	1	1
Black Creek	Black Creek	....	4	4
Bradner (Matsqui)	Aberdeen	....	3	3
	Jubilee	....	2	2
Bridgeport (Richmond)	Bridgeport	17	6	23
	Lord Byng	....	2	2
	Mitchell	....	1	1
Britannia Beach	Britannia Beach	....	1	1
	Britannia Mine	....	1	1
	Private Study	....	1	1
South Bulkley	South Bulkley	....	2	2
Burgoyne Bay	Beaver Point	....	3	3
	Burgoyne Bay	....	1	1
Burnaby	Edmonds Street	58	23	81
	Gilmore Avenue	33	20	53
	Inman Avenue	....	8	8
	Kingsway West	31	24	55
	Nelson Avenue	17	12	29
	Schou Street	....	3	3
	St. Helen's (Private)	....	1	1
Burns Lake	Burns Lake	....	2	2
	Tintagel	....	1	1
Burton	Arrow Park, West	....	3	3
	Mount Ingersoll	....	2	2
Campbell River	Campbell River	....	4	4
	Oyster Bay	....	1	1
Cassidy	Cassidy	....	4	4
	Waterloo	....	2	2
Castlegar	Castlegar	....	2	2
	Thrums	....	2	2
Chase	Chase	....	10	10
	Shuswap	....	1	1

Number of Successful Candidates at each School—*Continued.*

Centre.	School.	Promoted on Recommendation.	Passed Examination.	Total.
Chilliwack	Central	1	31	32
	Atchelitz	....	4	4
	Camp Slough	....	3	3
	Cheam	....	5	5
	Chilliwack, East	....	1	1
	Fairfield Island	....	1	1
	Lotbiniere	....	8	8
	Robertson	....	13	13
	Rosedale	....	4	4
	Sardis	....	10	10
	Strathcona	....	3	3
	Vedder Creek	....	1	1
	Popcum	....	2	2
	Coqualeetza (Private)	....	3	3
Clearwater	Clearwater	....	2	2
	Little Fort	....	1	1
	Raft River	....	1	1
	Vavenby	....	1	1
Clinton	Big Bar Mountain	....	2	2
	Clinton	....	2	2
	Green Lake, South	....	1	1
Coalmont	Coalmont	....	5	5
	Tulameen	....	1	1
Colwood	Albert Head	....	1	1
	Colwood	....	1	1
	Happy Valley	....	1	1
	Langford	....	3	3
	Rocky Point	....	1	1
Courtenay	Courtenay	13	8	21
	Grantham	....	2	2
	Lazo	....	1	1
	Puntledge	....	2	2
	Royston	....	3	3
	Sandwick	....	1	1
North Cowichan	Chemainus	....	5	5
	Crofton	....	1	1
	Westholme	....	1	1
	Galiano, North	....	1	1
	Oyster, South	....	5	5
Cranbrook	Central	24	26	50
	Bull River Bridge	....	3	3
	Fort Steele	....	2	2
	Jaffray	....	1	1
	Moyie	....	1	1
	Wardner	....	2	2
	Wycliffe	....	3	3
Crawford Bay	Crawford Bay	....	3	3
Creston	Creston	....	13	13
	Camp Lister	....	3	3
	Canyon City	....	2	2
	Erickson	....	3	3
	Sirdar	....	1	1
	Wyndell	....	3	3
Cumberland	Cumberland	12	13	25
	Bevan	....	1	1
	Minto	....	1	1
Denman Island	Denman Island	....	2	2
	Hornby Island	....	1	1
Dewdney	Dewdney	....	4	4
	Nicomen Island	....	2	2
	Deroche	....	1	1
Duncan	Duncan	....	34	34
	Cowichan Station	....	2	2

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

Centre.	School.	Promoted on Recommendation.	Passed Examination.	Total.
Duncan	Genoa Bay	....	1	1
	Mill Bay	....	1	1
	Sahtlam	....	1	1
	Shawnigan Lake	....	1	1
	Sylvania	....	1	1
Edgewood	Needles	....	1	1
	Renata	....	1	1
Elphinstone Bay	Elphinstone Bay	....	1	1
	Roberts Creek, East	....	1	1
	Wilson Creek	....	1	1
Enderby	Enderby	....	17	17
	Deek Creek	....	1	1
	Enderby, North	....	4	4
	Grindrod	....	1	1
	Springbend	....	2	2
Esquimalt	Esquimalt	1	37	38
	Goldstream	....	2	2
Fernie	Fernie	41	35	76
	Coal Creek	....	6	6
Ganges Harbour	Divide	....	3	3
	Ganges Harbour	....	5	5
	Colston (Private)	....	1	1
	Girls' (Private)	....	1	1
	Private Study	....	1	1
Gillis Bay	Gillis Bay	....	6	6
Giscome	Giscome	....	1	1
Golden	Castledale	....	1	1
	Golden	....	7	7
Granby Bay	Granby Bay	....	11	11
Grand Forks	Central	24	13	37
	Brown Creek	....	2	2
	Cascade	....	1	1
Greenwood	Greenwood	....	10	10
	Boundary Falls	....	1	1
	Bridesville	....	1	1
	Ingram Mountain	....	1	1
	Kerr Creek	....	1	1
	Kettle Valley	....	2	2
	Midway	....	3	3
	Myncaster	....	1	1
	Rock Creek	....	1	1
Haney	Haney	....	17	17
	Webster's Corner	....	3	3
Hazelton	Hazelton	....	3	3
	New Hazelton	....	1	1
Hedley	Hedley	....	1	1
Heriot Bay	Heriot Bay	....	2	2
Hope	Concord	....	1	1
	Hope	....	3	3
	St. Elmo	....	2	2
	Yale	....	2	2
Howe Sound	Bowen Island	....	2	2
	Howe Sound	....	8	8
Huntingdon	Huntingdon	....	4	4
	Sumas, Upper	....	8	8
Ioco	Ioco	....	6	6
	Sunnyside No. 2	....	1	1
Kamloops	Kamloops	....	78	78
	Anderson Creek	....	1	1
	Beresford	....	1	1
	Cahilty	....	1	1
	Campbell Creek	....	1	1
	Chu Chua	....	1	1

Number of Successful Candidates at each School—*Continued.*

Centre.	School.	Promoted on Recommendation.	Passed Examination.	Total.
Kamloops	Fish Lake Road	....	1	1
	Fruitlands	....	2	2
	Grande Prairie	....	2	2
	Monte Creek	....	2	2
	North Thompson, West	....	3	3
	Pinantan	....	1	1
	Rose Hill	....	1	1
	Savona	....	1	1
	Trapp Lake	....	1	1
	St. Ann's (Private)	....	6	6
	Zetland (Private)	....	5	5
Kaslo	Kaslo	....	8	8
	Johnson's Landing	....	1	1
	Riondel	....	1	1
Kelowna	Kelowna	....	31	31
	Glenmore	....	1	1
	Kelowna, East	....	1	1
	Okanagan, South	....	3	3
Keremeos	Cawston	....	1	1
	Keremeos	....	7	7
Kimberley	Kimberley	....	6	6
Kingcome Inlet	Kingcome Inlet	....	3	3
Lac la Hache	Lac la Hache	....	2	2
Ladner	Ladner	....	34	34
	Mosher Siding	....	2	2
	Trenant	....	2	2
Ladysmith	Ladysmith	....	40	40
	Diamond Crossing	....	3	3
	Oyster, North	....	1	1
	Extension	....	8	8
	Galiano, North	....	1	1
	Perpetual Help (Private)	....	5	5
Langley	Aldergrove	....	6	6
	Belmont	....	2	2
	Glenwood	....	2	2
	Langley Fort	....	12	12
	Langley Prairie	....	10	10
	Langley, West	....	1	1
	Lochiel	....	2	2
	Milner	....	7	7
	Murrayville	....	6	6
	Otter	....	1	1
	Sperling	....	1	1
Lasqueti	Maple Grove	....	1	1
Lillooet	Lillooet	....	2	2
Loos	Loos	....	2	2
Lumby	Lumby	....	4	4
	Reiswig	....	1	1
Lund	Lund	....	1	1
Lytton	Lytton	....	1	1
Malcolm Island	Kaleva	....	2	2
	Malcolm Island	....	4	4
Maple Ridge	Hammond	....	3	3
	Maple Ridge	....	11	11
Mara	Mara	....	3	3
Matsqui	Clayburn	....	3	3
	Matsqui	....	11	11
	Ridgedale	....	2	2
Merritt	Merritt	1	25	26
	Brookmere	....	1	1
	Canford Mill	....	1	1
Michel	Michel	....	4	4
	New Michel	....	4	4

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

Centre.	School.	Promoted on Recommendation.	Passed Examination.	Total.
Mission	Hatzic	....	3	3
	Mission	15	12	27
Mount Lehman	Dunach	....	4	4
	Mount Lehman	....	5	5
Macalister	Macalister	....	4	4
McBride	Dome Creek	....	2	2
	McBride	....	1	1
	Educ. Dept. Correspondence Course	....	1	1
Nakusp	Box Lake	....	3	3
	Glenbank	....	7	7
	Nakusp	....	4	4
Nanaimo	Nanaimo	60	54	114
	Brechin	....	6	6
	Cedar, North	....	4	4
	Cedar, South	....	1	1
	Chase River	....	6	6
	Departure Bay	....	1	1
	Grant Mine	....	3	3
	Harewood	9	5	14
	Mountain	....	3	3
	Nanaimo Bay	....	1	1
	Northfield	....	2	2
	Wellington	....	5	5
	Wellington, South	....	7	7
	St. Ann's (Private)	....	5	5
	St. George's (Private)	....	1	1
	Private Study	....	2	2
Naramata	Naramata	....	4	4
Nelson	Central	21	37	58
	Hume	7	11	18
	Bonnington Falls	....	2	2
	Meadow Spur	....	1	1
	Passmore	....	3	3
	Salmo	....	1	1
	Slocan Junction	....	2	2
	Williams Siding	....	1	1
	Willow Point	....	5	5
	Ymir	....	1	1
	Private Study	....	1	1
New Denver	New Denver	....	5	5
	Rosebery	....	1	1
New Westminster	Central	1	85	86
	Lister-Kelvin	....	68	68
	Richard McBride	1	30	31
	Herbert Spencer	....	29	29
	Hamilton Road (Burnaby)	....	1	1
	Seaforth (Burnaby)	....	2	2
	Central (Coquitlam)	....	7	7
	Sunbury (Delta)	....	1	1
	Providence Orphanage (Private)	....	2	2
	St. Ann's (Private)	....	11	11
	Private Study	....	3	3
North Bend	Boston Bar	....	1	1
	Chaumox	....	1	1
	North Bend	....	3	3
Notch Hill	Anglemont	....	1	1
	Blind Bay	....	1	1
	Meadow Creek	....	1	1
	Notch Hill	....	2	2
	Sorrento	....	2	2
	White Lake	....	4	4
Oak Bay	Monterey Avenue	14	23	37
	Willows	1	26	27

Number of Successful Candidates at each School—*Continued.*

Centre.	School.	Promoted on Recommendation.	Passed Examination.	Total.
Oak Bay	Uppingham (Private)	....	2	2
Ocean Falls	Ocean Falls	....	22	22
Oliver	Oliver	....	4	4
	Osoyoos	....	2	2
Oyama	Oyama	....	5	5
	Winfield	....	3	3
Parksville	Errington	....	5	5
	French Creek	....	4	4
	Hilliers	....	1	1
	Nanoose Bay	....	1	1
	Parksville	....	6	6
	Qualicum Beach	....	2	2
Peachland	Peachland	....	6	6
Pemberton Meadows	Pemberton Meadows	....	2	2
Pender Island	Pender Island	....	1	1
	Saturna Island	....	1	1
Penticton	Penticton	37	22	59
Point Grey	David Lloyd George	15	11	26
	Edith Cavell	22	10	32
	Kerrisdale	29	27	56
	Lord Kitchener	16	5	21
	Magee	26	10	36
	Prince of Wales	30	13	43
	Queen Mary	33	17	50
Port Alice	Port Alice	....	4	4
Port Clements	Port Clements	....	3	3
Port Coquitlam	Central	....	7	7
	James Park	....	7	7
	Glen	....	5	5
	Silver Valley	....	1	1
	Victoria Drive	....	3	3
	Pitt Meadows	....	5	5
Port Essington	Essington	....	2	2
Port Moody	Port Moody	....	12	12
Port Renfrew	Port Renfrew	....	2	2
Port Simpson	Port Simpson	....	2	2
Powell River	Powell River	9	6	15
Prince George	Prince George	13	5	18
	Fort George	....	8	8
	Fort George, South	....	5	5
	Mud River	....	1	1
	Shelley	....	1	1
	Stone Creek	....	1	1
	Private Study	....	1	1
Prince Rupert	Booth Memorial	12	17	29
	Borden Street	12	7	19
	Annunciation (Private)	....	8	8
Princeton	Killarney	....	1	1
	Princeton	....	15	15
Procter	Balfour	....	1	1
	Harrop	....	2	2
	Procter	....	6	6
Quesnel	Dragon Lake	....	2	2
	Quesnel	....	2	2
Revelstoke	Revelstoke	....	53	53
	Albert Canyon	....	2	2
	Big Eddy	....	1	1
	Eagle Valley	....	1	1
Rock Bay	Menzies Bay	....	1	1
	Thurlow	....	1	1
Roe Lake	Roe Lake	....	1	1
Rolla	Dawson Creek, South	....	1	1
	Pouce Coupe, Central	....	1	1

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

Centre.	School.	Promoted on Recommendation.	Passed Examination.	Total.
Rolla	Rolla	....	1	1
	Swan Lake, North	....	1	1
	Taylor Flats	....	1	1
Rossland	Rossland	16	12	28
Ruskin	Ruskin	....	2	2
	Whonnock	....	1	1
Rutland	Joe Rich Valley	....	1	1
	Rutland	....	4	4
Saanich	Cedar Hill	....	11	11
	Cloverdale	....	21	21
	Craigflower	....	2	2
	Keating	....	6	6
	Model	....	9	9
	Mackenzie Avenue	....	11	11
	Prospect Lake	....	2	2
	Royal Oak	....	3	3
	Saanichton	....	4	4
	Saanich, West	....	7	7
	Strawberry Vale	....	8	8
	Tillicum	....	19	19
	Tolmie	....	16	16
	James Island	....	3	3
	Saanich, North	....	2	2
Salmon Arm	Salmon Arm	....	15	15
	Broadview	....	3	3
	Canoe	....	3	3
	Gleneden	....	2	2
	Salmon Arm, West	....	8	8
	Sunnybrae	....	2	2
	Tappen	....	2	2
	Tappen Valley	....	1	1
Sandon	Sandon	....	5	5
	Three Forks	....	1	1
Sayward	Sayward, Upper	....	2	2
	Hardwicke Island (Private)	....	2	2
Sidney	Sidney	....	9	9
Silverton	Silverton	....	5	5
Skidegate	Lawn Hill	....	2	2
	Sandspit	....	1	1
	Skidegate	....	1	1
Slocan	Slocan City	....	2	2
	Appledale	....	1	1
	Perry Siding	....	2	2
Smithers	Smithers	....	3	3
Sooke	Otter Point	....	1	1
	Sooke	....	5	5
	Sooke, North	....	1	1
Squamish	Squamish	....	7	7
Stewart	Premier	....	1	1
	Stewart	....	2	2
Summerland	Summerland	18	6	24
Surrey	Anniedale	....	1	1
	Clayton	....	3	3
	Cloverdale	....	21	21
	Colebrook	....	1	1
	Elgin	....	1	1
	Hall's Prairie	....	5	5
	Johnston Road	....	2	2
	Kensington, East	....	1	1
	Kensington Prairie	....	2	2
	Newton	....	7	7
	Port Mann	....	1	1
	Springdale	....	4	4

Number of Successful Candidates at each School—*Continued.*

Centre.	School.	Promoted on Recommendation.	Passed Examination.	Total.
Surrey	Tynehead	....	3	3
	Westminster, South	....	1	1
	White Rock	....	16	16
	Woodward's Hill	....	3	3
	Barnston Island	....	1	1
Terrace	Kitsumgallum	....	4	4
Tofino	Tofino	....	1	1
	Ahousat (Indian)	....	1	1
Trail	Trail	....	51	51
	Annable	....	1	1
	Fruitvale	....	6	6
Union Bay	Bowser	....	1	1
	Fanny Bay	....	3	3
	Union Bay	....	4	4
Vananda	Vananda	....	2	2
Vancouver	Aberdeen	17	1	18
	Alexandra	30	34	64
	Bayview	18	14	32
	Beaconsfield	15	8	23
	Central	25	7	32
	Dawson	51	22	73
	Charles Dickens	20	17	37
	Fairview	21	8	29
	Franklin	14	14	28
	Fraser	26	4	30
	Gordon	38	6	44
	Grandview	30	22	52
	Hastings	39	9	48
	Hudson	40	12	52
	Kitsilano	35	10	45
	Livingstone	18	11	29
	Model	36	17	53
	Mount Pleasant	28	19	47
	Macdonald	17	7	24
	Nelson	38	12	50
	Nightingale	40	12	52
	Rhodes	36	31	67
	Roberts	57	30	87
	Secord	30	16	46
	Seymour	29	13	42
	Strathcona	36	21	57
	Tennyson	45	26	71
	Lake Buntzen	....	1	1
	Eudistine (Private)	....	1	1
	St. Ann's (Private)	....	7	7
	St. Augustine's (Private)	....	7	7
	St. Patrick's (Private)	....	25	25
	Private Study	....	1	1
Vancouver, North	Lonsdale	....	24	24
	Queen Mary	31	16	47
	Ridgeway	22	11	33
Vancouver, North, Municipal	Capilano	....	3	3
	Lynn Valley	16	10	26
	North Star	....	6	6
	St. Edmund's (Private)	....	6	6
Vancouver, South	Brock	12	9	21
	Carleton	32	46	78
	Gordon	15	16	31
	Moberly	24	19	43
	McBride	30	33	63
	Mackenzie	32	16	48
	Norquay	8	9	17
	Secord	9	9	18

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

Centre.	School.	Promoted on Recommendation.	Passed Examination.	Total.
Vancouver, South	Selkirk	45	32	77
	Sexsmith	8	13	21
	Tecumseh	17	19	36
	Van Horne	20	13	33
	Wolfe	24	22	46
Vancouver, West	Pauline Johnson	18	12	30
Vanderhoof	Fort Fraser	....	1	1
	Fort Fraser, North	....	2	2
	Fraser Lake	....	1	1
	Orange Valley	....	1	1
	Prairiedale	....	1	1
	Stuart River	....	1	1
	Vanderhoof	....	7	7
Vernon	Vernon	40	25	65
	Coldstream	....	2	2
	Lavington	....	2	2
	Ewing's Landing	....	1	1
	Falkland	....	3	3
	Kedleston	....	1	1
	St. Michael's (Private)	....	8	8
Victoria	Boys' Central	11	18	29
	Douglas	22	16	38
	Girls' Central	25	17	42
	George Jay	26	32	58
	Margaret Jenkins	12	17	29
	North Ward	29	24	53
	Oaklands	28	20	48
	South Park	25	32	57
	West	11	18	29
	Oriental (Private)	....	3	3
	St. Ann's (Private)	....	10	10
	St. Louis (Private)	....	11	11
Waldo	Baynes Lake	....	1	1
	Elko	....	2	2
	Waldo	....	1	1
Westbank Townsite	Glenrosa	....	3	3
	Westbank	....	2	2
	Westbank Townsite	....	3	3
Whaletown	Read Island	....	1	1
	Whaletown	....	2	2
Williams Lake	Chimney Creek	....	2	2
	Rose Lake	....	1	1
	Williams Lake	....	1	1
Wistaria	Alexander Manson	....	1	1
	Wistaria	....	3	3
Woodfibre	Woodfibre	....	2	2
Yahk	Yahk	....	3	3
Totals, June, 1925		2,130	3,568	5,698
Totals, June, 1924		1,895	2,887	4,782

APPENDIX B.

HIGH SCHOOL ENTRANCE EXAMINATION, JUNE, 1925.

ARITHMETIC. (Time, 2½ hours.)

Value.

12 1. (*a.*) Write in words, 180.075; in figures, five and seven ten-thousandths (fractional part to be given in decimal form); in Roman numerals, 1,867.

(*b.*) How much greater than four hundred twenty-nine thousand seven hundred fifty-six is one million twenty thousand and ten?

(*c.*) Divide the difference between $8\frac{5}{9}$ and $6\frac{3}{5}$ by the sum of $\frac{4}{15}$ and $\frac{8}{25}$.

12 2. (*a.*) A coal dealer bought a car-load of coal weighing 47,600 lb. Find what he paid for it at $7.20 a ton.

(*b.*) Three men living together agree to share their expenses in proportion to what they earn per month. The first man earns $150 per month, the second $170, and the third $180. If their expenses for the month of May were $225, how much should each man pay?

12 3. (*a.*) If there were 14 inches in a foot, (*a*) how many square inches would there be in a square foot? (*b*) How many cubic inches would there be in a cubic foot?

(*b.*) The circumference of the forewheel of a wagon is 10½ feet. How many revolutions will it make in going 7 miles?

18 4. A marble slab is 4 feet 9 inches long, 3 feet 6 inches wide, and 10 inches thick. (*a.*) What is its value at $19.20 a cubic foot? (*b.*) What will it cost to polish its six faces or sides at $4.80 a square foot?

18 5. (*a.*) Express as decimals, $\frac{1}{4}$ and $\frac{5}{8}$; as common fractions, $37\frac{1}{2}\%$ and $85\frac{5}{7}\%$; in per cent., .1 and $3\frac{1}{4}$.

(*b.*) By selling a watch for $64 a jeweller gained $16. Find his gain per cent.

(*c.*) The school population of the Province was 94,888 in June, 1923, and 96,204 in June, 1924. Find the gain per cent. during the year (give answer to two places of decimals).

16 6. (*a.*) A fruit dealer in Florida sent 3,560 boxes of grapefruit to a commission agent in Vancouver who sold them at $4.75 a box. If the agent's commission was 4½% and freight and other charges amounted to $125, find the amount the agent must remit to the dealer in Florida.

(*b.*) A man whose income in 1923 was $2,375 had to pay an income-tax of 4% on all over $2,000 to the Dominion Government and 1% on all over $1,500 to the Provincial Government. Find the total amount he had to pay in income-tax to the two Governments.

12 7. $730.

Vancouver, B.C., May 5th, 1924.

Five months after date, for value received, I promise to pay James Roberts, or order, Seven hundred and thirty dollars, with interest at 6%.

Henry Price.

Find: (*a.*) When the note became due. (*b.*) The amount James Roberts should receive from Henry Price when the note became due.

DRAWING. (Time, 2¼ hours.)

Value.

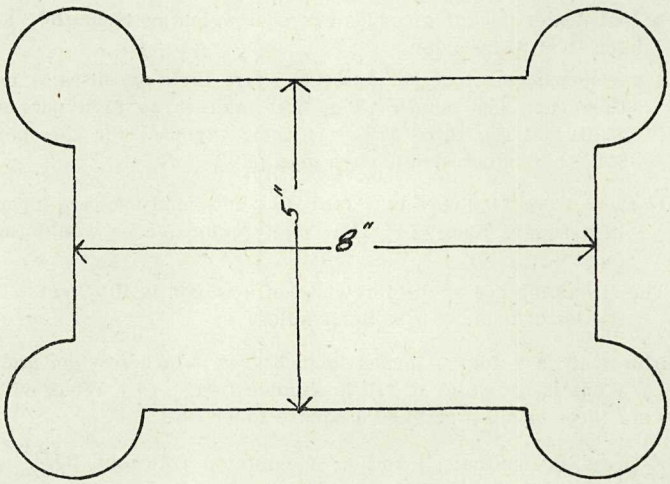
16 (*a.*) Select two examples of work from your drawings, as follows:—

(1.) The best example of colour drawing from nature.

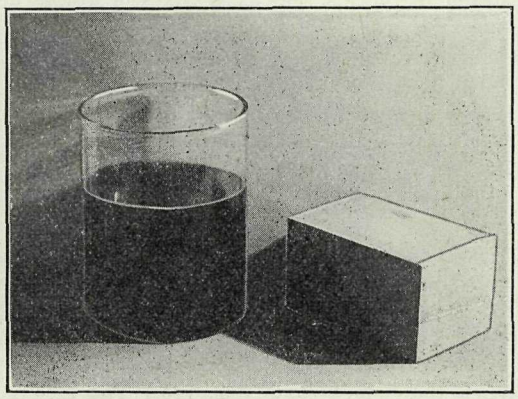
(2.) The best example of colour drawing in a design.

30 (*b.*) Construct a geometrical figure (8″ by 5″) similar to the one drawn below; and within it arrange and print the following verse (be careful about the spacing of letters and words):—

"Our gracious Lord has promised
To be our Friend and Guide,
And we can want for nothing
While He is by our side."



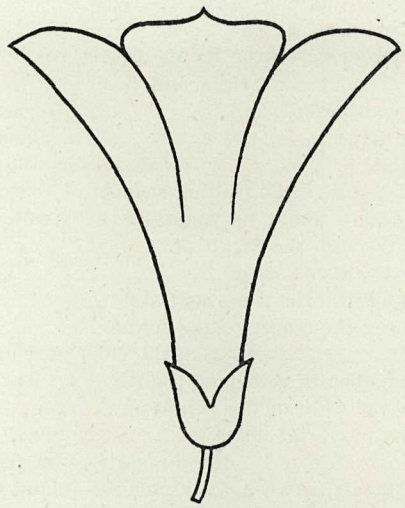
30 (*c.*) In a rectangle 6 inches by 5 inches make a drawing of the given photograph. If time permits finish in light and shade. (No ruling allowed except in drawing rectangle.)



Value.

24 (*d.*) Repeat the given unit three times in a border 3 inches wide. Use any arrangement that you have used in borders during the year.

No ruling allowed except in drawing the border.



Geography. (Time, 2¼ hours.)

In each blank, fill in the word or words needed to make the statement complete. For example, in the sentence, "The capital of Canada is.....," you would write the word "Ottawa" in the blank.

50 1. (*a.*) On maps, lines which join places having the same latitude are called..... .....; those joining places having the same longitude are called ..... The latitude of the southern boundary of British Columbia is.....degrees north, that of the northern boundary of British Columbia is..... degrees north. The earth's circumference is (approximately).....miles in length, and the length of a degree of latitude is (approximately).....miles.

(*b.*) The Canadian National Railway enters the Province of British Columbia by the .....Pass, and immediately divides into two branches; one branch runs north-west through the valley of the River .....to the City of.....; then up the Nechako Valley, crossing the divide and passing through a fine farming country, it reaches the.....River and follows that river down to the coast; then turns in a north-westerly direction to the terminal city of ..... The other branch follows the course of the North Thompson down to its junction with the South Thompson at..... and continues in a westerly direction following the Thompson and Fraser Rivers After leaving the famous Fraser Canyon the railway passes through a rich dairying district, and twelve miles before reaching Vancouver crosses the Fraser by a fine bridge at.....

(*c.*) The chief industry at Anyox is.....; at Nanaimo.....; at Ocean Falls.....; in the Okanagan Valley.....; in the district around Stewart.....

(*d.*) Two of the six states that make up the Commonwealth of Australia are particularly noted for sheep and cattle farming; these two are.....and ..... Sugar-cane and tropical fruits are grown in the state of....., and the island state is..... New Zealand is.....than a thousand miles distant from Australia, and its

Value.

principal seaport is..... The native inhabitants of New Zealand are known as.....

(*e.*) The federal capital of the United States is....., and the two largest cities are..... and.....; the greatest iron-smelting city is.....; the chief seaport on the Gulf of Mexico is.....; the American States (from north to south) bordering on the Pacific Ocean are....., ..., and .....

(*f.*) The capital of Argentina is....., situated at the head of deep-water navigation on the River..... From the capital a railroad runs inland, crossing the.....Mountains and reaching the Pacific Coast at ....., the leading seaport of the country of.....

(*g.*) An interesting holiday might be spent in the Mediterranean. Entering from the Atlantic we pass through the Strait of.....and coast north-east to the noted Spanish Port of.....with its manufactures of cotton, linen, and silk fabrics; we next visit....., the greatest French seaport, near the mouth of the River.....and from there we go to....., the chief port of north-west Italy, passing on our way the famous health resorts of the Riviera. Travelling down the Italian coast, with a glimpse to our right of the Island of....., Napoleon's birthplace, we may pay brief visits to....., the capital of Italy, and to.....the largest city on the peninsula. Still southward through Messina Strait between Italy and the Island of....., and then east, crossing the Ægean Sea we pass through the..... into the Sea of Marmora, and then continue on to....., until recently the capital of the Turkish Empire. Returning to the Ægean Sea we go south and land at....., the leading port of Asia Minor, long noted for its figs, and from there sail to the Suez Canal. Our return to Canada might be made by way of the Canal and the Red Sea, eastward past the Continent of Asia, and across the Pacific Ocean to Vancouver.

11 2. Lightly sketch (or draw with compasses) a circle of about 5 inches diameter to represent the Earth.

(*a.*) On it show and name the Arctic and Antarctic Circles, the Tropics, and the Equator. Give degree of latitude of each circle.

(*b.*) Show by means of arrows the directions of the trade winds and the westerly winds.

(*c.*) Explain why the trade winds blow in the direction indicated in your diagram.

24 3. Draw in the space below a map of the three Prairie Provinces of Canada. Show on it:—

(*a.*) The Saskatchewan River System, and such parts of the Athabaska, Peace, Red, and Assiniboine Rivers as are included in the three Provinces.

(*b.*) Lakes Winnipeg, Athabaska, and Manitoba.

(*c.*) The following cities: Calgary, Winnipeg, Saskatoon, Brandon, Edmonton, Regina, Moose Jaw.

(*d.*) *Below the map* draw a straight line AB to represent a distance of 500 miles on the map.

15 4. On the accompanying map of the British Isles:—

(*a.*) Show and name the prime meridian, the 50th parallel of North Latitude, Dover Strait, Bristol Channel, Orkney Islands, North Sea, Irish Sea, Firth of Forth, English Channel.

(*b.*) Show and name the following: Rivers—Thames, Clyde, Humber, Mersey, Severn, and Shannon; Cities—London, Cardiff, Edinburgh, Birmingham, Glasgow, Dublin, Newcastle, Southampton, Belfast, Leeds.

(*c.*) Write under the name of each of the following cities the manufacture for which it is noted: Leeds, Glasgow, Birmingham, Belfast, Manchester.

GRAMMAR AND COMPOSITION. (Time, 2½ hours.)

Value.

33 1. He thought that *if* he could find a brownie *that* would do his work he would save himself a *great* deal of trouble.

When father came in *from* the fields he said *that* big boys and little boys and everybody else must take care of the things they wanted to keep.

The system has been modified *to meet* industrial conditions, *but* it *still* retains a great many of the features *which* characterize the older forms of apprenticeship.

In the above sentences:—

(*a.*) What are the principal and the subordinate clauses? Give the kind of each clause and state the relation of the subordinate clauses.

(*b.*) What part of speech is each of the italicized words? Give reasons for your answer.

(*c.*) State the cases and the relations of brownie, his, things, system, it, and which.

8 2. Give the voice, mood, tense, number, person, and class (transitive or intransitive) of the verbs in the following sentences:—

(*a.*) I have seen the house where Shakespeare was born.
(*b.*) Come to the hotel at which we are staying.
(*c.*) We had passed the castle and were leaving the valley.
(*d.*) If they return the books soon, they will not be fined.

8 3. Write, in two columns, the past tense and the past participle of the verbs *rise, set, choose, begin, creep, blow, come, eat, drink, go, become, drive, tear, do, draw, run.*

16 4. Correct the error in each of the following sentences and give a reason for the change you make:—

(*a.*) The cat has laid down to sleep.
(*b.*) He don't know anything about it.
(*c.*) Either John or James are guilty.
(*d.*) Tom had came with John and me.
(*e.*) If a person lives in the city they must not expect a quiet life.
(*f.*) It was she who parted with him at the corner.
(*g.*) He could learn the dog only one trick.
(*h.*) One of them boys is here.

18 5. (*a.*) Rewrite and punctuate: Who is making that noise I hear it again is it a carpenter with his hammer now I see it is a woodpecker he is over there on the trunk of the maple tree

(*b.*) Write to J. M. Dent & Sons, 215–219 Victoria St., Toronto, Ontario, ordering a copy of "The Far West Coast" (Denton) and a copy of "Mother Nature Stories" (Sherman) and enclosing money order for $3.25.

(Use your examination number instead of your name.)

(*c.*) Suppose that a merchant in your city or district advertised for a boy or girl to assist in his store for July and August. Write an application in answer to the advertisement stating your age, qualifications, salary expected and whatever additional information you think might be of interest to your prospective employer.

(Use your examination number instead of your name.)

17 6. (*a.*) Write a paragraph in which you give good advice to a "*pupil who is usually late in arriving at school.*"

(*b.*) Write a short story (about one-half a page) for a school magazine, using *any one* of the following as a title:—

(*a.*) A Bird.
(*b.*) A School Picnic.
(*c.*) A Launch Trip.
(*d.*) A Motor 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 Section A 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.*]

Value.

37 A. When water turns into ice / it expands. / An iron pipe, / which is filled with water / and sealed, / breaks when the water freezes. / This shows / the great force of freezing water. / Similarly, / when the water freezes / in the pores / of a piece of rock, / the expansion of the ice / tends to produce cracks / in the walls of the pores. / This process, / often repeated, / will in time / cause the rock to crumble. / Again, / when water freezes / in a crack in a rock, / the ice acts as a wedge / and widens the crack. / In the spring of the year, / when there is much freezing / and thawing, / this process often causes / pieces of rock / to split off from the sides / of steep precipices / and rocky mountain slopes. / Usually at the base / of such slopes / in cold humid climates / there is a pile of debris (de-bre') / that has fallen from above. / Finally, / the surface of bare rock / that is alternately heated / and cooled / tends to expand and then to contract, / but as there is no change / in temperature / in the internal parts / of the rock, / a strain is set up / at every expansion / and contraction. / These successive strains / cause cracks to appear. / This is one cause / of the cracking / of cement pavements and buildings.

18 B. (*a.*) The secretary / of the executive committee / called an emergency meeting of the organization / for the first Wednesday / in February. /

(*b.*) A majority of the citizens / decided to proceed immediately / to the scene / of the recent automobile accident. /

(*c.*) On any grave issue, / we especially recommend / the principle of utilizing / the judgment / of persons of character / and practical experience. /

(*d.*) The decision of the Committee / was unfortunate in the extreme. /

(*e.*) The Senate deemed it advisable / to adjourn after the discussion / of its foreign policy. /

(*f.*) The dairy-maid kept a diary / of daily occurrences. /

20 C.

vil'lage,
dis'ci pline,
sim'i lar,
pur suit' (pur sūt'),
in i'tial,
tru'ly,
aux il'i ary,
debt'or (det'or),
crys'tal,
physi'cian,
par'lia ment,
mort'gage,
bus'iness,
ser'geant (sar'jent),
fifti'eth,
vil'lainy,
fea'tures,
trace'able,
siege,
crit'icism,
surgeon,
theme,
em balm' (em bam'),
en'vious,
forbade' (for bad'),
Arc'tic (Ark'tic),
embar'rass,
chasm (kasm),
pleb'is cite (pleb'i sĭt),
ad dress',
cor'ridor,
ap plaud',
col'umn (col'um),
mas'sa cre,
ba zaar',
hy'phen,
leg'ible,
vac'cin ate (vak'sin āt),
sa'lad,
neg'li gence.

APPENDIX C.

HIGH SCHOOL EXAMINATION, JUNE, 1925.

Grade IX.

ENGLISH LITERATURE. (Time, 2 hours.)

Value.

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

On My Mother's Picture, 10 consecutive lines.

The Ode on the Death of Wellington, 10 consecutive lines.

To a Skylark, 2 consecutive stanzas.

Thanatopsis, last lines ("So live, etc.").

Ulysses, 10 consecutive lines.

4 2. (*a.*) From what poem is each of the following quotations taken?—

(1.) 'Tis always morning somewhere, and above
The awakening continents from shore to shore
Somewhere the birds are singing evermore.

(2.) A deep distress hath humanized my soul.

(3.) So much for idle wishing—how
It steals the time! To business now.

(4.) For so the whole round earth is every way
Bound by gold chains about the feet of God.

4 (*b.*) Give the name of the author of each of the four poems referred to in section (*a*) of this question.

4 (*c.*) Name one other poem, included in your Fifth Reader, written by each of the poets named in section (*b*) of this question.

15 3. Explain clearly any *three* of the following passages of poetry:—

(*a.*) Yet all experience is an arch wherethro'
Gleams that untravell'd world whose margin fades
For ever and for ever when I move.

(*b.*) Who gives himself with his alms feeds three—
Himself, his hungering neighbor, and me.

(*c.*) And, while the wings of fancy still are free,
And I can view this mimic form of thee,
Time has but half succeeded in his theft,—
Thyself removed, thy power to soothe me left.

(*d.*) One writes, that "Other friends remain,"
That "Loss is common to the race"—
And common is the commonplace,
And vacant chaff well meant for grain.

16 4. Discuss, in two or three clearly written paragraphs, your ideas as to the reasons why Socrates was so fearless in the face of death.

15 5. Write a carefully written paragraph on *one* of the following topics:—

(*a.*) The Secret of Daniel O'Connell's Power to Sway Men.

(*b.*) The Peculiarities of Sir Roger de Coverley.

(*c.*) The Character of the Duke of Wellington.

Value.

16 6. Discuss *one* of the following:—

(*a.*) The Vanity of Alan Breck Stewart.

(*b.*) The Treachery of David Balfour's Uncle Ebenezer.

16 7. Write a short account of *one* of the following:—

(*a.*) John Ridd's Ride on Tom Faggus's Mare, Winnie.

(*b.*) The Death of Carver Doone.

(*c.*) Lorna's Escape from Doone Valley.

LATIN. (Time, 2 hours.)

5 1. Make a list of case-endings of the third declension, adding rules for the formation of the genitive plural in *um* or *ium*.

5 2. Decline in combination: *civis Romanus, finitima civitas, duae legiones, signum militare, aliud tempus.*

6 3. Compare: *liber, acer, humilis, utilis, bonus, magnus.*

3 4. To what positive forms (if any) do the following belong: *pessimus, plurimus, ultimus, extimus, infimus, summus.*

10 5. Give the principal parts of: *absum, reperio, considо, solvo, incendo, dico, facio, cedo, repello, do.*

7 6. Express in Latin: thirty ships, two hundred and seventy men, fifty-five horses, ninety-nine boys; and the odd numbers from 27 to 37, inclusive.

12 7. Write the following verb forms, giving one English meaning for each:—

(*a.*) Second singular perfect indicative active and passive of *cognosco.*

(*b.*) Third plural future indicative active of *committo.*

(*c.*) First singular pluperfect indicative active of *augeo.*

(*d.*) Third plural perfect indicative passive of *dispono.*

(*e.*) Second singular imperfect indicative of *absum.*

20 8. Translate into English:—

(*a.*) Alia consilia rei publicae sunt utilia, alia periculosa.

(*b.*) Omnes superiores dies summum montem tenebat.

(*c.*) Maximas copias ex omnibus partibus Etruriae coegit et magnis itineribus ad flumen Tiberim contendit.

(*d.*) Milia passuum octo a castris consederant.

(*e.*) Agger erat latus pedes trecentos viginti, altus pedes septuaginta.

32 9. Translate into Latin:—

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

(*b.*) We shall pitch our camp on the top of the hill.

(*c.*) He is the brother of the one, the friend of the other.

(*d.*) We are adjacent to two states.

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

(*f.*) When Caesar is absent they will attack the winter camp.

(*g.*) If the number of the enemy increases, we shall not join battle.

(*h.*) He is like no other leader.

FRENCH. (Time, 2 hours.)

Value.

21 1. Answer the following questions in French, using complete sentences:—

(*a.*) Quelle heure est-il?

(*b.*) Quel jour de la semaine est-ce aujourd'hui?

(*c.*) Quel jour du mois est-ce?

(*d.*) Quel temps fait-il aujourd'hui?

(*e.*) En quelle saison sommes-nous?

(*f.*) Quel costume portez-vous?

(*g.*) Qu' avez-vous aux pieds?

(*h.*) Dans quelle salle mange-t-on?

(*i.*) Quels fruits sont rouges?

(*j.*) Donnez les noms de deux animaux, de deux oiseaux et de deux sortes de brosses.

28 2. Translate into French:—

(*a.*) Good morning, children, how are you to-day?

(*b.*) We are very well, thank you.

(*c.*) What is your name, my boy?

(*d.*) My name is John.

(*e.*) Where do you live?

(*f.*) I live in British Columbia.

(*g.*) Are you a Canadian?

(*h.*) Yes, sir, but my father is English.

(*i.*) How old are you, my boy?

(*j.*) I am fourteen years old.

(*k.*) Do you live in Chilliwack?

(*l.*) Yes, sir, I live on Henderson Street.

(*m.*) Do you ride your bicycle to school?

(*n.*) No, sir, I walk, but when it rains I go on the street-car.

6 3. (*a.*) Put the nouns in column B in the place of the nouns in Column A and make the necessary changes:—

A.	B.
son grand fauteuil	chaise
la main droite	bras
mon chapeau bleu	robe
un petit panier	boîte
ce ruban brun	ficelle
votre jolie maison	yeux

5 (*b.*) Put these adjectives in the correct place and make them agree with their nouns:—

La dictée est ici (bon).

Le livre est perdu (français).

J'ai acheté une table (carré).

Il y a plusieurs femmes là-bas (vieux).

Je n'ai pas de crayons (vert).

4 (*c.*) Write in French the cardinal and ordinal forms of: nine, eleven, twenty-one, eighty.

Value.

7 4. Supply suitable prepositions in these sentences:—

La clef est — la serrure.

J'avance — la fenêtre.

Je mets mon chapeau — la tête.

Il donne sa plume — Jean.

Mes habits sont — laine.

On va — pied.

Il est debout — la porte.

12 5. Change the italicized *vous* to *je* and make the other necessary changes:—

Vous vous asseyez sur votre chaise; *vous* regardez dans votre pupitre; *vous* prenez votre cahier et votre plume; *vous* mettez le cahier sur le pupitre et *vous* écrivez des mots. *Vous* vous levez et *vous* commencez à chanter "A la Claire Fontaine."

17 6. Translate into English:—

Au printemps il ne fait pas très froid, nous allons à la campagne quand le soleil brille et nous entendons les oiseaux chanter dans les bois. Il y a aussi des abeilles et des papillons dans les champs où nous trouvons toutes sortes de belles fleurs.

Après une bonne promenade nous sommes heureux de rentrer le soir à la maison pour manger un dîner de soupe, de poisson, de légumes. Enfin, c'est avec plaisir que tous les enfants se couchent et ne lèvent pas la tête de l'oreiller de toute la nuit.

ENGLISH COMPOSITION. (Time, 2 hours.)

12 1. Use each of the words in the following pairs correctly in a sentence:—

(1.) Stationary, stationery.

(2.) Accept, except.

(3.) Last, latest.

(4.) Counsel, council.

(5.) Respectfully, respectively.

(6.) Principal, principle.

8 2. Rewrite the following sentences, substituting for the italicized words, words which have approximately the same meaning:—

He *rebuked* me *severely*.

The *magistrate* cautioned the prisoner not to repeat the *offence*.

The spring sunshine is a *source* of *delight* to everybody.

We paddled *vigorously* for *several* hours.

3. Punctuate the following:—

3 (1.) A little thrush flew down from nowhere and rested herself on the green studded branch of an old elm Spring is coming she twittered.

4 (2.) A little wizened old man with a long white beard and dressed in a little red coat red pointed hat with an unusually long green feather adorning it red trousers red stockings and red shoes with very big bright buckles skipped out of a little hole under the aged oak

Value.

13 4. Write to the publishers of your favourite magazine (or newspaper) subscribing to it for a year. Write the envelope address.

60 5. Write a composition of not more than 200 words on *one* of the following:—

(1.) David Balfour Returns to the House of Shaws. (Kidnapped.)

(2.) John Ridd's First Visit to London. (Lorna Doone.)

(3.) The Most Enjoyable Holiday I Ever Had.

(4.) My Favourite Study.

GENERAL SCIENCE. (Time, 2 hours.)

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

1. (*a.*) Describe how the weight of air per cubic foot may be determined.

(*b.*) The weight of a flask of 864 cubic inches capacity filled with air is 467 grams. The weight of the flask after the air has been exhausted is 450 grams. Determine the weight of one cubic foot of air.

(*c.*) Give three uses of compressed air.

2. Write on bacteria under the following heads: (1) Size and growth; (2) relation to disease; (3) useful bacteria; (4) means of distribution; (5) control.

3. (*a.*) Write briefly upon the relation of plants to our food supply.

(*b.*) What food elements do plants derive from (1) the air, (2) the soil?

(*c.*) State briefly how carbohydrates are formed in plants.

4. (*a.*) Describe with the aid of a diagram a distillation apparatus.

(*b.*) What commercial use is made of this apparatus?

5. (*a.*) Name *two* common electrical devices which depend upon the effect produced by passing a current through metal wires, and describe the construction and operation of *one.*

(*b.*) What is the use of a fuse in an electric circuit? Indicate the essential parts of a fuse, and explain its operation.

6. (*a.*) What is the difference between a direct and an alternating current? State the advantage of each.

(*b.*) What are the essential parts of a transformer? State its purpose.

7 (*a.*) Describe with the aid of a diagram a lead storage cell and explain its operation.

(*b.*) Outline briefly the proper care of an automobile battery.

8. (*a.*) What *two uses* does the animal body make of food?

(*b.*) Briefly describe how the dissolved and digested food in the alimentary canal gets into the blood.

(*c.*) What is meant by a proper balance of foods?

9. (*a.*) Classify soils and state the distinguishing characteristics of each class.

(*b.*) What agencies convert rock into soil? State how they operate.

10. (*a.*) Why is it important to have a supply of pure water for household and drinking purposes?

(*b.*) What means may be adopted to purify a large water supply?

(*c.*) How may sewage be rendered harmless before discharging it into watercourses?

GEOMETRY. (Time, 2½ hours.)

Value.

5 1. (*a.*) How many degrees are there between the hands of a clock at 2 o'clock?

5 (*b.*) Two roads meet at a point. One runs north and the other south-east. What angle is between these roads?

15 2. In a triangle ABC, the angle at A is 30°. The side BA is equal to the side BC. BD is drawn to cut AC at D so as to make BD equal to DA. Give in degrees the size of the angle DBC and state how to find the size of this angle without measuring it.

15 3. Using only a straight-edge and compasses, construct any acute-angled triangle having its shortest side about 2.5 inches long. From each vertex draw a perpendicular to the opposite side. (No written statement of any kind is required.)

15 4. If two triangles have two sides of the one equal to two sides of the other, each to each, and also the angles contained by those sides equal, the triangles are congruent.

15 5. If two angles of a triangle are equal the sides opposite to these angles are equal.

15 6. Draw a parallelogram ABCD. Join AC and produce it to E. Prove that the angle DCE is equal to the sum of the angles ABC and ACB.

15 7. State, giving reasons in each case, whether each of the following is a *true* or a *false* statement:—

(*a.*) Straight lines which do not meet however far they are produced in either direction are parallel straight lines.

(*b.*) Two triangles that have three angles of the one equal to three angles of the other, each to each, are congruent.

(*c.*) A triangle may have one of its angles a right angle and each of the other two acute.

HISTORY. (Time, 2 hours.)

[*Answer any* five *questions.*]

20 1. (*a.*) Describe briefly any relics of the Stone Age in England.

(*b.*) How did the people of this Age produce fire?

(*c.*) What food did they live upon at first, and again later on as they developed?

(*d.*) What implements did they invent for the chase and for agriculture?

20 2. (*a.*) Describe in a few lines how the surface of Upper and Lower Egypt was built up.

(*b.*) What branch of mathematics developed from the change of seasons in the valley of the Nile?

(*c.*) What are the chief features of Egyptian architecture?

(*d.*) Compare the preservation of temples and other buildings in Egypt with that of those in the valley of the Tigris and Euphrates.

20 3. (*a.*) Give the geographical position of Phœnicia and tell why the Phœnicians were sailors.

(*b.*) Name the chief city of Phœnicia and connect it with Bible History and with Greek History.

(*c.*) Show what relations the Hebrews had with Egypt, Babylon, and Phœnicia.

(*d.*) Relate in a few words any voyages made by the Egyptians and Phœnicians.

20 4. Describe briefly the Olympic Games and tell what effect they had on the scattered Greek states.

(*b.*) Enumerate in a few words the reforms of Solon.

Value.

20 5. (*a.*) Describe briefly the training of a boy in Sparta.
(*b.*) How did the Spartan women compare with Athenian women?

20 6. (*a.*) Summarize in not more than ten lines the two Persian invasions of Greece.
(*b.*) State the effects of these invasions upon Greece.

20 7. (*a.*) Describe *either* the Athenian Acropolis in the time of Pericles *or* an Athenian home of that time.
(*b.*) Give a brief outline of Alexander the Great's expedition into Asia.

20 8. (*a.*) What were the effects of the defeat of Carthage upon Rome?
(*b.*) In a few lines give an account of the work of Julius Cæsar when he was proconsul in Gaul.

20 9. (*a.*) State briefly the reforms of the Gracchi.
(*b.*) "It is injurious for the small farmers to desert the country for the city." Discuss the truth of this by reference to Rome, to England, and to Canada.

20 10. Give in a line or two the historical connection of each of the following: Sphinx, Pillars of Hercules, Satrap, deme, cuneiform, barbarians, Mantinea, Zama, Actium, Constantine.

ARITHMETIC. (Time, 2 hours.)

8 1. (*a.*) Multiply 804607 by 804007.
(*b.*) Divide 2701260 by 698.

8 2. Find the cost of each of the following:—
1,440 lb. of hay at $30 per ton.
5 gallons 3 quarts 1 pint of milk at 36 cents per gallon.
8 yards 1 foot 3 inches of ribbon at 18 cents per yard.
5 gross 5 dozen pens at 10 pens for 16 cents.

8 3. The longitude of Charlottetown, P.E.I., is 63° 10′ west. When it is 3.15 p.m. in Charlottetown, what is the time in Victoria, B.C., longitude 123° 19′ west?

10 4. (*a.*) Express 3 Km. 3 m. 3 cm. as cm.
(*b.*) Express 3 dekametres 3 decimetres as kilometres.
(*c.*) Find the weight (expressed in kilograms) of the water in a rectangular box 1.4 metres long, .8 metre wide, and .75 metre deep.

10 5. A rug is 15 feet long and 12 feet wide. The invoice price is £5. The duty is 90 cents per square yard and 40% ad valorem. If a pound sterling can be bought for $4.80, at what price must the rug be sold to gain 25%.

10 6. A merchant has 500 barrels of flour insured for 75% of its cost at 2⅕%, paying $80.85 premium. At what price per barrel did he purchase the flour?

10 7. The tax bill of a person who pays a tax of 19½ mills on the dollar on all his income except $1,200 is $35.10. Find his gross income.

12 8. In selling a quantity of oranges and pineapples, a fruit-dealer gained $12.50, gaining 25% on the oranges but losing 10% on the pineapples. If the loss on the pineapples was 20% of the net gain, find the cost of each.

12 9. On June 1, 1923, Mr. Smith deposited $1,500 in the Savings Bank. The bank pays 3% interest, which is added semiannually on Nov. 30 and May 31. What sum of money has Mr. Smith to his credit on June 1, 1925?

12 10. Find the alteration in income occasioned by changing $3,200 stock from the 3 per cents at 86⅜ to 4% stock at 114⅞, the brokerage being ⅛%.

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.*]

Value.

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 ornamental design coloured so as to illustrate the principle of analogous harmony.

6 2. An example of ornamental design coloured so as to illustrate the principle of complementary harmony.

6 3. An example of colour-work from nature.

6 4. An example of shaded object-drawing.

6 5. An example of lettering.

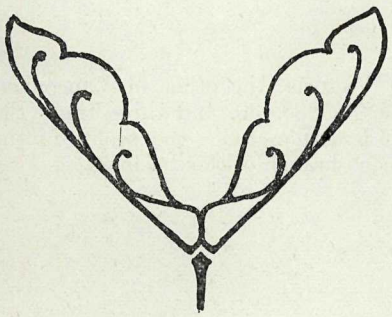
35 *(b.) Lettering.*

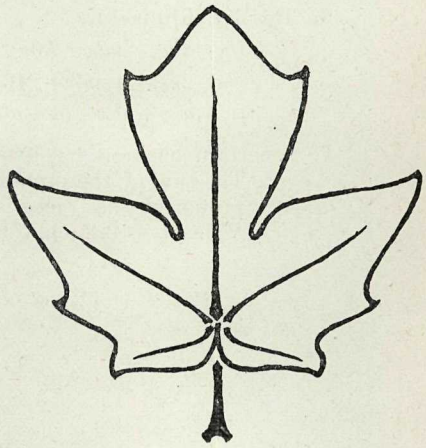
With set-square and ruler draw a rectangle 7½ inches wide by 5½ inches high. Place this in the middle of your drawing-paper, so that there is room all around it for a border. Within this rectangle, leaving suitable margins, using plain unshaded letters, letter the following:—

"Buy goods made in Canada; it brings dollars back to your own pocket."

35 *(c.) Design.*

Decorate the panel of lettering, called for in the question above, with a border of suitable width around the outside, making use of the forms in the accompanying cut. If you have not time to finish the whole border, be sure to finish at least a corner. Write on your design the colours you would use in the various spaces.





Grade IX., Preliminary Course.

ALGEBRA. (Time, 2 hours.)

Value.

16 1. (*a.*) Multiply $a^4 - 7ab^3 + 11b^4$ by $a^3 + 3ab^2 - 5b^3$.
(*b.*) Divide $x^6 - x^5 + 6x^4 + 5x^3 - 57x^2 + 32x + 3$ by $x^3 - 5x + 2$.

9 2. In the equation $15x - 8y = 6$:—
(*a.*) Determine the value of y if x be given the value 2.
(*b.*) Find the value of x if y be given the value $5\frac{1}{2}$.
(*c.*) Find the value of x, when x and y have the same value.

12 3. (*a.*) What is the interest on \$$a$ for b years at c % per annum?
(*b.*) An aviator can go x miles in y hours. How long will it take him to go z miles? How far can he go in u hours?
(*c.*) What is the average price per lb. when a merchant buys m lb. of tea at p cents per lb. and n lb. at q cents per lb.

15 4. Give :—
(*a.*) The square of $11a^3b^5$.
(*b.*) The square root of $25y^{20}$.
(*c.*) The cube of $-2m^7c^2$.
(*d.*) The H.C.F. of $12p^3q^4r^5$ and $15p^5q^4r^3$.
(*e.*) The L.C.M. of $12p^3q^4r^5$ and $15p^5q^4r^3$.

24 5. Solve the equations :—
(*a.*) $(4 - 7x) - \{3x - [4x + 2(7 - 4x) - 3(3 - 5x)]\} = 2x$.
(*b.*) $x - \dfrac{x - 13}{9} = \dfrac{6x + 1}{5} + \dfrac{2}{3}\left(6 - \dfrac{3x}{2}\right)$.
(*c.*) $5x - 7y = 0$
$7x + 5y = 74$.

15 6. Resolve into factors :—
(*a.*) $a^2b^2 - 3abc - 10c^2$.
(*b.*) $2m^2 - 44mn + 210n^2$.
(*c.*) $a^2x + abx + ac + aby + b^2y + bc$.

9 7. A certain business has two branches, one in Victoria, the other in Vancouver. The sum of the profits of the two branches is \$88,130, and three times the profits of the Victoria branch is just \$15 less than twice the profits of the Vancouver branch. Find the profits of each branch of this business.

Grade X.

ENGLISH LITERATURE. (Time, 2 hours.)

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

SECTION A. LONGER NARRATIVE POEMS.

Value.

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

(*a.*) *Christabel.*

(*b.*) *The Deserted Village.*

(*c.*) *Snowbound.*

3 2. (*a.*) Name three customs or beliefs in *Sohrab and Rustum* which contribute to the Oriental setting of the poem.

3 (*b.*) Explain clearly, but very briefly, how Rustum finally prevailed in his combat with Sohrab.

3 (*c.*) By what means was Rustum definitely persuaded that the dying Sohrab was his son?

12 3. Discuss *Snowbound* as a picture of home-life in New England during the earlier years of the 19th century.

8 4. Enumerate four incidents or circumstances employed by the author of *Christabel* in his creation of the supernatural atmosphere of the poem.

12 5. Contrast the present desolation of *The Deserted Village* with its former prosperity.

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

(*a.*) To me more dear, congenial to my heart,
One native charm, than all the gloss of art.

(*b.*) Alas for him who never sees
The stars shine through his cypress-trees!

(*c.*) And fools, who came to scoff, remained to pray.

(*d.*) And thence I vowed this selfsame day,
With music strong and saintly song
To wander through the forest bare,
Lest aught unholy loiter there.

SECTION B. JULIUS CAESAR.

Answer any *two* of these questions:—

10 (1.) Discuss two occasions in the play, *Julius Caesar*, on which Brutus overrules the decisions of Cassius on disputed points.

10 (2.) Discuss the means whereby Cassius induces Brutus to join the conspiracy against Julius Caesar.

10 (3.) Write a paragraph on *one* of the following subjects:—

The Fickleness of the Mob.

The Gentler Qualities in the Character of Brutus.

SECTION C. QUENTIN DURWARD.

Answer any *two* of these questions:—

10 (1.) Give a brief account of how Quentin Durward came to be enrolled as an Archer of the Scottish Guard.

10 (2.) Write briefly on *Quentin Durward* as a picture of conditions in France during the reign of Louis XI.

Value.

10 (3.) Write on *one* of the following:—

The Vanity of Le Balafré.

The Superstition of Louis XI.

SECTION D. SPECIMENS OF THE SHORT STORY.

Answer any *two* of these questions:—

10 (1.) "As a man thinketh in his heart, so is he." Discuss this principle with reference to the story, "The Great Stone Face."

10 (2.) Write a very brief biography of Charles Lamb, drawing your information chiefly from the sketch, "The Superannuated Man."

10 (3.) Write briefly on "Dr. Manette's Manuscript" as a mirror of conditions in France prior to the French Revolution.

LATIN. (Time, 2 hours.)

10 1. Decline in the singular only: *uter homo, quae res, illud iter;* in the plural only: *hic dies, tu, vis.*

4 2. Compare: *magnus, prudens, utilis, magnopere.*

3 3. Write the numerals: *seven, seventeen, sixth, ninety-three, eighteen, eleven.*

4 4. Write the genitive plural of *fructus, civis, filius;* the ablative singular of *mare, cornu;* the dative singular of *unus, ager, pedes.*

6 5. Write the third singular present indicative active of *capio, fero;* second singular future indicative active of *nolo, audio;* second singular perfect indicative active of *mitto;* second plural present imperative of *hortor;* first plural present subjunctive active of *moneo, volo;* third plural future perfect indicative active of *capio;* perfect infinitive active of *do;* third singular imperfect subjunctive of *proficiscor, volo.*

10 6. Write the Latin for: on the same day; let us return; with great danger to himself; do not go away; I shall disembark; do you not think? both consuls; a man of great valor; a ditch ten feet wider; of great use to us.

10 7. Principal parts of: *desilio, vinco, proficiscor, maneo, resisto, sterno, quaero, audeo, traho, infero.*

32 8. Translate into Latin:—

(*a.*) He promised to help us.

(*b.*) He urged me to remain in Rome ten days.

(*c.*) We wish to take thought for you.

(*d.*) Do not ask us to give hostages.

(*e.*) They sent envoys to ask for peace.

(*f.*) You are said to excel the others in valour.

(*g.*) We persuaded them not to leave the city.

(*h.*) They were so afraid of our troops that they were unwilling to cross the river.

14 9. Translate into English:—

Quod cum nollet Ariovistus facere, iterum ad eum Caesar legatos mittit qui *postularent* primum ne amplius Germanos trans Rhenum in Galliam traduceret; deinde ut obsides Gallis redderet neve bellum *iis* inferret. Ad haec Ariovistus respondit se Gallos vicisse atque jure belli uti *constituisse;*

Value.

se obsides redditurum non esse, neque Gallis injuria bellum illaturum si *imperio* suo parerent; atque si Caesar vellet secum congredi, intellecturum quanta *esset* virtus invictorum Germanorum.

(*a.*) Account for the case of *iis, imperio;* the mood of *postularent, constituisse, esset.*

7 10. Translate into English:—

Cum jam multi hortarentur ut in Graeciam reverterentur, Ulixes Graecis persuasit ut aliud consilium inirent. Equus ligneus ingenti magnitudine est effectus atque viris armatis completus est. Tum reliqui Graeci in naves conscenderunt et se in Graeciam navigare simulabant.

(*a.*) Account for the case of *magnitudine;* the mood of *inirent.*

French. (Time, 2 hours.)

1. Write the opposites of:—

5 (*a.*) Mauvais, présent, étroite, facile, propre, bon marché, tard, en bas, dessus, noire.

6 (*b.*) Give the French for: (1.) Mary is as beautiful as a flower. (2.) John is taller than Henry. (3.) Marguerite is less interesting than Louise.

5 2. Write the following in the *future* tense, using "il" as subject:—

Quand vous *avez* mal aux dents vous *allez* chez un dentiste, car vous *souffrez* beaucoup. Vous vous *asseyez* dans un fauteuil puis vous vous *tenez* tranquille.

3. Replace the infinitives in brackets in the following:

5 (*a.*) By the past indefinite tense: Quand je (aller) à la campagne je (se lever) tous les matins de très bonne heure. Je (s'habiller) vite, je (prendre) mon déjeuner dans la salle à manger et je (ouvrir) la fenêtre.

3 (*b.*) By the imperfect tense: Mon frère ne (être) pas là je (remonter) pour le réveiller et je (crier) "Jean, Jean réveillez-vous."

8 (*c.*) By the present tense: Un jour je (dormir) très tard, et ce (être), Jean qui me (sortir) du lit. Il (devoir) me donner un copieux déjeuner et nous (remplir) nos tasses du bon café que ma soeur (venir) de préparer. Enfin nous (partir) pour l'école où les élèves nous (recevoir) joyeusement.

10 4. Complete the following sentences by using *il est* or *c'est:*—

(1.) — un médecin; — docteur.
(2.) — nous; — eux.
(3.) — un homme célèbre.
(4.) — ici que nous demeurons.
(5.) — une heure et demie.
(6.) — demain le 4 janvier.
(7.) A qui est ce crayon? — à moi.
(8.) — malade.

10 5. (*a.*) Replace the italicized words by pronouns:—

(1.) Nous avons payé *les bonbons au marchand.*
(2.) Jean n'a pas répondu *à son père.*
(3.) Nous avons attendu *ces enfants.*
(4.) On nous a montré *des mouchoirs.*
(5.) Il a couru *à la maison.*

Value.

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

La fourrure — j'ai vue et sur — il y a un ruban rouge appartient à la reine — voyage dans notre pays.
Le pardessus gris est celui — je préfère.
— dites-vous? Je n'ai pas parlé.

13 6. Put into English:—

Une dame, âgée, était dans un omnibus où se trouvait aussi un vieux monsieur, "Il fait trop chaud" s'écrie celui-ci, "ouvrez la fenêtre, j'étouffe." "Fermez-la" dit la dame à son tour, "je vais mourir de froid." Le conducteur hésitait. Un voyageur proposa alors, "Conducteur, ouvrez la fenêtre et le monsieur étouffera, puis vous la fermerez et la dame mourra, ainsi nous aurons la paix."

étouffer— to stifle.
mourir—to die.

30 7. Translate into French:—

Jean: Good morning, Henri. What are you doing in the country in June? Are you ill?
Henri: I am not very well and I am resting (se reposer) here.
Jean: How long have you been here?
Henri: I have been here for two weeks.
Jean: Do you sleep well?
Henri: Last night I did not sleep very well, but I shall go to bed early to-night and I shall sleep all night.
Jean: Will you please waken me when you get up? I am going for a ride to-morrow morning.
Henri: Why, yes. I went for a drive yesterday. The weather was beautiful. We set out at half-past nine and arrived home at lunch time. Before going into the dining-room I washed my hands and face. I was very hungry and I ate heartily. When I was eating my dessert two gentlemen arrived and I invited them to dine with me at seven in the evening. If it is fine to-morrow we shall go for a row on the lake.

ENGLISH COMPOSITION. (Time, 2 hours.)

1. Punctuate the following, insert capitals where necessary, and arrange any verse into its proper lines:—

3 (1.) and what did your uncle say to that asked the judge he said you must never breathe a word of this to a living soul was the reply

3 (2.) three courses lay open to the french general he could evacuate the city and fall back upon his old base he could attempt to hold the city against the allies or he could assume the aggressive and actually attack the weak force guarding the meuse

3 (3.) will he ever be weary of wandering the flaming sun ever weary of waning in lovelight the white still moon will ever a shepherd come with a crook of simple gold and lead all the little stars like lambs to the fold.

2. State what is wrong with the following sentences and write them correctly:—

2 (1.) After enjoying the evening in dancing all thoughts turned to supper.

2 (2.) Paris is larger than any city in France.

2 (3.) I am one of those who cannot describe what I do not see.

2 (4.) She has a bad habit of procrastinating everything until to-morrow.

Value.

3+3 3. You have received an invitation to a party. Write both a formal and an informal
2 acceptance of the invitation. What circumstance would guide you in deciding which of the two forms of acceptance to use?

75 4. Write a composition of about 200 words on *one* of the following:—

The Life of Sohrab. *(Sohrab and Rustum.)*

A California Mining Camp. *(The Outcasts of Poker Flat.)*

The Battle of Philippi. *(Julius Caesar.)*

How I Spent My Last Summer's Vacation.

ALGEBRA. (Time, 2 hours.)

6 1. In the equation $x^2 + 2xy = 7y + 37$ find the value of y:—

(*a.*) When x is given the value 5.

(*b.*) When x is given the value $3\frac{1}{2}$.

(*c.*) When x is given the value -8.

9 2. Form perfect squares of the following by supplying the missing term in each:—

(*a.*) $9x^6 + (\,?\,) + 4y^2$.

(*b.*) $121a^6 - 66a^3z + (\,?\,)$.

(*c.*) $(\,?\,) - 40hk^2 + 64k^4$.

20 3. Solve the equations:—

(*a.*) $$\frac{25 - \frac{x}{3}}{x+1} + \frac{16x + 4\frac{1}{5}}{3x+2} = 5 + \frac{23}{x+1}.$$

(*b.*) $$\frac{2}{7}\left(6x - \frac{5y}{6}\right) - \left(5x - \frac{11y}{2}\right) = 2.$$

$$\frac{x-y}{x+y} = \frac{1}{5}.$$

20 4. Resolve into factors:—

(*a.*) $a^2c^3 - c^3 + a^2 - 1$.

(*b.*) $x^4 - 11x^2 + 24$.

(*c.*) $x^4 - 13x^2 + 36$.

(*d.*) $x^4 - 11x^2 + 25$.

(*e.*) $a^3 - 3a^2b + 3ab^2 - 2b^3$.

10 5. The following expression is the product of two equal factors:—

$1 - 22x^2 + 6x^3 + 121x^4 - 66x^5 + 9x^6$.

What are these factors?

15 6. (*a.*) Find the H.C.F. of $x^3 - 19x - 30$ and $x^3 - 2x^2 - 29x - 42$.

(*b.*) What is the L.C.M. of these two expressions?
(The result may be left in the factor form.)

10 7. Simplify $(x+2)\left\{1 + \frac{6(x+2)}{x^2 - x - 6}\right\}\left\{1 - \frac{5(x+1)}{x^2 + 3x + 2}\right\}$.

10 8. A man agreed to sell 2,500 tons of cement at \$16 a ton. What he had on hand cost him \$12 a ton. Not having enough he had to buy cement at \$18 a ton to fulfil his contract. On the transaction he made a profit of \$5,800. How many tons had he to buy?

BOTANY. (Time, 2 hours.)

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

1. Distinguish between a fruit and a seed. Describe the structure of the seed of a monocotyledon and of a dicotyledon. What is the use of each part?
2. Describe a bulb, a tuber, a corm, a rhizome, and a stolon. Give one example of each and bring out clearly the reasons why each is considered to be a modified stem.
3. Give diagrams to illustrate the flower structure of one member of each of the following families, choosing specific examples (label fully): (*a*) Ranunculaceæ; (*b*) Liliaceæ.
4. Write a note on the importance of the plant kingdom to the animal kingdom.
5. Discuss the function of green leaves in regard to the manufacture of plant-food materials.
6. Describe and give examples of five different kinds of fruit.

GEOMETRY. (Time, 2½ hours.)

Value.

15 1. If the sides of a convex polygon are produced in order, the sum of the angles so formed is equal to four right angles.

10 2. A quadrilateral is a parallelogram if its diagonals bisect each other.

15 3. Parallelograms on the same base and between the same parallels are equivalent.

15 4. The area of a triangle ABC is 4.5 square inches. The base is equal to the altitude. One of the interior angles at the base is 120°. Construct the triangle and give a theoretical statement of your construction.

15 5. A and B are two points on opposite sides of a straight line CD. Show how to find a point P in CD so that the angle APC is equal to the angle BPC. Give a proof.

15 6. In an obtuse-angled triangle the square on the side opposite to the obtuse angle is equal to the sum of the squares on the sides containing the obtuse angle plus twice the rectangle contained by one of those sides and the projection on it of the other.

15 7. ABC is an acute-angled triangle of which BC is the least side. With B as centre and BC as radius, a circle is drawn cutting AB at D and AC at E. If AD is equal to DE prove: (1) that the angle CED equals the sum of the angle BCA and twice the angle CAB; (2) that the angle ABC equals twice the angle CAB.

CHEMISTRY. (Time, 2 hours.)

18 1. (*a.*) Name the allotropic forms of carbon and briefly describe their characteristic properties.

(*b.*) What are the chief gaseous constituents of coal-gas?

(*c.*) State two *chemical properties* of carbon dioxide and give its *uses*.

18 2. (*a.*) Detail a convenient laboratory method for preparing a few jars of *oxygen*, illustrating with a diagram. Write the equation.

(*b.*) State: (1) the chief *chemical property* of oxygen; (2) two commercial *uses*.

15 3. Distinguish between the following and give examples:—

(*a.*) A symbol and a chemical *formula*.

(*b.*) A solution and a *chemical* compound.

(*c.*) Saturated and *supersaturated* solutions.

Value.

18 4. Describe, with equations, what takes place in each of the following cases:—

(*a.*) When charcoal is burned in oxygen and the residual gas shaken with a solution of calcium hydroxide (lime-water).

(*b.*) When white-hot iron wire is immersed in an atmosphere of chlorine.

(*c.*) When a lighted taper is brought to the mouth of a jar of acetylene.

15 5. Describe the precautions that should be taken in the following operations and give reasons:—

(*a.*) Lighting a jet attached to a hydrogen generating apparatus.

(*b.*) Cutting a small piece from a stick of yellow phosphorus for experimental purposes.

(*c.*) Testing the odour of a jar of gas suspected of being either chlorine or hydrogen chloride.

16 6. (*a.*) Briefly describe what is meant by *valency.*

(*b.*) What is the valency of copper, phosphorus, and sodium in the following: copper sulphate, phosphorus trichloride, sodium oxide?

(*c.*) State the *law of definite proportions* (or constant composition) and explain concisely what it means.

PHYSICS. (Time, 2 hours.)

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

1. Explain the following:—

(*a.*) How to find the density of a liquid by using the specific gravity bottle.

(*b.*) *Magnetic declination, electrical repulsion.*

2. (*a.*) By means of sketches explain the different classes of levers. Give a common example of each class.

(*b.*) Neglecting friction, what is the mechanical advantage of each of the following: *inclined plane, screw, single movable pulley.*

3. (*a.*) State the *law* which is applied practically in the *hydraulic press.*

(*b.*) Make a sketch to show the position of the valves of the common *suction-pump* in the *up-stroke* of the piston. Account for the upward flow of water from the reservoir to the spout.

4. (*a.*) Why is *mercury* commonly used in thermometers?

(*b.*) Explain clearly *heat transference* in relation to the following: *oven-roasting, snow, the polished surface of a tea-kettle.*

5. (*a.*) State the First Law of Reflection and illustrate by drawing a figure representing an experimental proof of it.

(*b.*) How is light transmitted?

6. (*a.*) The similar poles of two bar-magnets are placed near together. Make a sketch showing the *lines of force.*

(*b.*) Describe the construction of *either* a Voltaic Cell *or* a Leyden Jar.

7. Solve any *two* of the following:—

(*a.*) The crank of a windlass is 1 foot long and its drum 7 inches in diameter. What force applied to the handle will lift a weight of 156 lb.?

(*b.*) On mixing 500 grams of iron at 200° C. with 3 kilograms of oil, the temperature of the oil is raised from 15° C. to 20°,C. Find the specific heat of the oil. (Specific heat of iron=0.113.)

(*c.*) A mass of air whose volume is 210 c.c. when the barometer stands at 760 m.m. has a volume of 240 c.c. when carried up to a certain height. What was the reading of the barometer at the latter height, assuming that the temperature remained constant?

HISTORY. (Time, 2 hours.)

[*Answer any* five *questions.*]

Value.

20 1. (*a.*) Give a brief account of Mohammed.

(*b.*) Outline the extension of Mohammedan conquest up to the battle of Tours in 732.

20 2. Write a brief essay on Charlemagne, touching especially upon the extent of his conquests, law and government, education and the Church.

20 3. Explain the four chief results of the Crusades to England and to Europe generally.

20 4. (*a.*) What effect on Middle and Western Europe had the advance of the Mohammedans on the Bosphorus?

(*b.*) Show how the progress of the Saracens affected trade routes and navigation.

20 5. (*a.*) Describe briefly the condition of the French people prior to the Revolution.

(*b.*) What act on the part of Napoleon brought him into prominence?

(*c.*) Describe in a few words the conflict between Napoleon and England in the war up to the Peace of Amiens.

(*d.*) Give a short outline of that work of Napoleon which was more important than his military achievements.

20 6. Describe the great advance in agriculture, manufacture, and transportation during the latter part of the eighteenth and the early part of the nineteenth centuries.

20 7. Write a brief explanatory note on each of the following men: Roger Bacon, Martin Luther, Sir Thomas More, Hampden, Cavour.

20 8. Outline the work of Bismarck in Germany.

ARITHMETIC. (Time, 2 hours.)

[*All work must be shown.*]

8 1. Simplify:—

(*a.*) $\frac{2}{3} \times \frac{3}{4} \div \frac{2}{3}$ of $\frac{3}{4}$.

(*b.*) $\frac{.125 \div .25}{.625 \div .375}$.

10 2. A pole of a circus tent is held in place by ropes 111 feet long running from the top of the pole to stakes 105 feet from the base of the pole. How high is the pole?

12 3. How many square yards of tin will be required to make 8 dozen pails, without covers, 9 inches in diameter and 7½ inches deep, allowing 3 square feet for seams and waste on each dozen pails?

12 4. A quart of milk supplies as much of both protein and energy as ¾ lb. of beef or 8 eggs. When milk is 12 cents per quart, beef 25 cents per pound, and eggs 30 cents per dozen, what per cent. is saved by buying milk instead of beef? instead of eggs?

12 5. A man commenced business with $3,000 capital. The first year he gained 22½%, which he added to his capital; the second year he gained 30% of the whole sum and again added the gain to the capital; the third year he lost 16⅔% of his entire capital. How much did he make during the three years?

Value.

14 6. A baseball ground is 480 feet long and 360 feet wide. It is enclosed by a close board fence 12 feet high, supported by posts placed 10 feet apart, to which are attached three stringers 2 inches by 4 inches running the full length of the fence. The top of the fence is covered by a round rail. The posts cost 45 cents each; the stringers, $32 per M.; the boards, 1 inch thick, $32 per M.; and the rail 2½ cents a linear foot. Find the total cost of the lumber.

16 7. Find the proceeds of a note for $900, dated Dec. 1, 1924, at 2 months with interest at 7% per annum and discounted at a bank on Dec. 15th at 6% per annum.

16 8. Mr. Brown owned a farm which rented at $411.45 per annum. He sold the farm for $8,229 and invested the proceeds in 6% stock at 105, paying ½% brokerage. Was his yearly income increased or decreased, and how much?

Agriculture. (Time, 2 hours.)

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

1. (*a.*) Write a concise account of how soils were made.
   (*b.*) Explain the following terms as applied to soils: Loam, sedentary, transported, glacial, alluvial, heavy, light, warm.

2. Scanty rainfall during the summer months is one difficulty with which the farmers and fruit-growers of B.C. have to contend. Mention two ways by which this difficulty may be overcome and explain clearly how each method is carried out.

3. Give brief instructions under the following heads for the growing of an acre of potatoes: (*a*) Choice and preparation of soil; (*b*) amount and choice of seed for either early or late crop; (*c*) preparation of seed (cutting and treating); (*d*) planting; (*e*) subsequent care; (*f*) yield expected.

4. (*a.*) Garden plants may be classified as annuals, biennials, and perennials. Explain these terms and say to which class the following belong: Lettuce, carrot, asparagus, peas, cabbage, celery, rhubarb, pumpkin, onion.
   (*b.*) Make a second list of these vegetables and state after each which part of the plant is used for human food.

5. (*a.*) Name the two types of swine and name two breeds belonging to each type.
   (*b.*) Sheep are sometimes classed as fine-wool, middle-wool, and long-wool breeds. Give an example of each. Which of the three would also be classed as a mutton breed and why?

6. (*a.*) England and Scotland have each produced two fine breeds of beef cattle. Name these breeds in each case.
   (*b.*) Give some of the most important characteristics of a good beef animal.

7. (*a.*) Trace briefly the life-history of any two of the following species of insects: Locust (grasshopper), cabbage-butterfly, any species of cutworm, codling-moth, tent-caterpillar.
   (*b.*) Indicate the character of the injury done by each of the two species described and state what remedial measures you would employ to destroy them.

8. (*a.*) Give directions for the planting and subsequent care of any *one* of the following: Loganberry, strawberry, raspberry.
   (*b.*) How are new plants obtained in the case of all three of the above varieties?

9. (*a.*) Give what you consider to be the essential features of a good poultry-house.
   (*b.*) Give concise directions for the care and feeding of laying hens during the three winter months.

Grade XI., Junior Matriculation and Normal Entrance.

GREEK. (Time, 2 hours.)

Value.

10 1. Decline in the singular τίς, τί, ἀσπίς, πατήρ, μήν.

12 2. Decline πᾶς and ἀληθής in all genders and numbers.

6 3. Write the imperfect passive indicative, the present active subjunctive, the present active optative of ποιέω.

6 4. Write the second person singular of the imperative (*a.*) present active, (*b.*) aorist middle, (*c.*) aorist passive of τιμάω.

6 5. Decline ἐγώ and σύ.

5 6. State the constructions denoting means, time when, time within which; the form of the past contrary to fact condition.

15 7. Write the principal parts of ἄγω, βούλομαι, πέμπω, νομίζω, καλέω, χράομαι, φεύγω, ἐλαύνω, ἀκούω, λαμβάνω.

20 8. Translate into English :—

(*a.*) ἔδεισαν μὴ οἱ ἐχθροὶ τιμηθεῖεν.

(*b.*) ἐὰν δὲ τοὺς στρατιώτας ἀδικῇ, οὐκ ἐθελήσομεν ἕπεσθαι αὐτῷ.

(*c.*) ἐζήτουν τοὺς ἄρχοντας ἵνα περὶ τούτων συμβουλεύοιντο αὐτοῖς.

(*d.*) παυσώμεθα, ὦ ἄνδρες στρατιῶται, ταύτης τῆς μάχης.

(*e.*) ἐπορεύετο νῦν ἂν ἐπὶ τοὺς πολεμίους εἰ στράτευμα εἶχεν.

20 9. Translate into Greek :—

(*a.*) For this army had been cut to pieces by the same viceroy.

(*b.*) They voted to send men with Clearchus also.

(*c.*) Why need these men proceed through the country itself?

(*d.*) If you should do this on account of friendship, we should justly feel grateful.

(*e.*) During this night the barbarians withdrew along the river.

ENGLISH LITERATURE. (Time, 2½ hours.)

[*Candidates are to write on Parts A and D, and on* either *Part B* or *Part C.*]

PART A.

10 1. (*a.*) Explain, as fully as you can, what is meant by the term "romantic" in literary history.

10 (*b.*) Of the poets you have studied, state which one seems to you the most clearly "romantic" and support your statement by references to that author's work.

24 2. Relate *four* of the following passages to their context. In each of the four cases show that the passage displays at least one characteristic of its author. And show also, as fully as you can, the beauty and fitness of the lines—with respect to allusions, or diction, or sound, or figure, or in any way you like.

Value.

(*a.*) The lights began to twinkle from the rocks:
The long day wanes: the slow moon climbs: the deep
Moans round with many voices. Come, my friends,
'Tis not too late to seek a newer world.

(*b.*) 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!
We shall march prospering,—not through his presence;
Songs may inspirit us,—not from his lyre.

(*c.*) and when the deed was done
I heard among the solitary hills
Low breathings coming after me, and sounds
Of undistinguishable motion, steps
Almost as silent as the turf they trod.

(*d.*) Must *we* but weep o'er days more blest?
Must *we* but blush?—Our fathers bled.
Earth! render back from out thy breast
A remnant of our Spartan dead!
Of the three hundred grant but three,
To make a new Thermopylae!

(*e.*) The world's great age begins anew,
The golden years return,
The earth doth like a snake renew
Her winter weeds outworn:
Heaven smiles, and faiths and empires gleam
Like wrecks of a dissolving dream.

(*f.*) Five miles meandering with a mazy motion
Through wood and dale the sacred river ran,
Then reached the caverns measureless to man,
And sank in tumult to a lifeless ocean.

(*g.*) Perhaps the self-same song that found a path
Through the sad heart of Ruth, when sick for home
She stood in tears among the alien corn;
The same that oft-times hath
Charm'd magic casements, opening on the foam
Of perilous seas, in faery lands forlorn.

Part B.

20 1. By whom and under what circumstances was the following speech uttered? Show how the passage is a fitting summary of, or comment on, the life of the speaker.

Hath not a Jew eyes? hath not a Jew hands, organs, dimensions, senses, affections, passions? fed with the same food, hurt with the same weapons, subject to the same diseases, healed by the same means, warmed and cooled by the same winter and summer, as a Christian is? If you prick us, do we not bleed? if you tickle us, do we not laugh? if you poison us, do we not die? and if you wrong us, shall we not revenge? If we are like you in the rest, we will resemble you in that. If a Jew wrong a Christian, what is his humility? Revenge. If a Christian wrong a Jew, what should his sufferance be by Christian example? Why, revenge. The villainy you teach me, I will execute, and it shall go hard but I will better the instruction.

24 2. There are three pairs of lovers in *The Merchant of Venice*. What reasons have you for thinking, in each case, that the match will be suitable?

PART C.

Value.

20 1. By whom and under what circumstances was the following speech uttered? Show how the passage is a fitting summary of, or comment on, the life of the speaker.

She should have died hereafter;
There would have been a time for such a word.
To-morrow, and to-morrow, and to-morrow,
Creeps in this petty pace from day to day,
To the last syllable of recorded time;
And all our yesterdays have lighted fools
The way to dusty death. Out, out, brief candle!
Life's but a walking shadow, a poor player
That struts and frets his hour upon the stage
And then is heard no more: it is a tale
Told by an idiot, full of sound and fury,
Signifying nothing.

24 2. To what extent do you think that Macbeth was "responsible" for his crime? In the course of your answer show, as fully as possible, the influence exercised upon him by the witches and by Lady Macbeth.

PART D.

12 The following poem is an exercise in "sight-reading"; probably no candidate has read or studied it before. It is intended as a test of your ability to interpret a poem by yourself. Read it carefully and then attempt the questions appended below. You need not try more than three or four of them.

All That's Past.

Very old are the woods;
And the buds that break
Out of the briar's boughs,
When March winds wake,
So old with their beauty are—
Oh, no man knows
Through what wild centuries
Roves back the rose.

Very old are the brooks;
And the rills that rise
Where snow sleeps cold beneath
The azure skies
Sing such a history
Of come and gone,
Their every drop is as wise
As Solomon.

Very old are we men;
Our dreams are tales
Told in dim Eden
By Eve's nightingales;
We wake and whisper awhile,
But, the day gone by,
Silence and sleep like fields
Of Amaranth lie.

(*a.*) In what respect can the buds of the briar (wild-rose) and the mountain brooks be called "old"?

(*b.*) In what ways is man like these buds and brooks? What is the significance of choosing these three things to go together?

(*c.*) Try to explain what is meant by saying that our dreams were "told" long ago in the Garden of Eden.

(*d.*) Who was Solomon? How can a drop of water be said to be as "wise" as he?

(*e.*) Comment on the word *wild* in stanza 1, *sleeps* and *azure* in stanza 2, and *whisper* in stanza 3.

(*f.*) Comment on the sound and rhythm of the second and third lines of stanza 1 and the last two lines of stanza 3.

History. (Time, 2 hours.)

[*Answer any* five *questions.*]

Value.

5+15 1. Why did the Protestant Reformation begin first in Germany? Tell briefly the story of Martin Luther's leadership.

5+15 2. What led to the launching of the "Invincible Armada"? Recall its fate and estimate its effect upon England.

5×4 3. Write notes on: (*a*) Sir John Eliot; (*b*) John Hampden; (*c*) John Pym; (*d*) "Cromwell's Ironsides."

20 4. Describe the condition of the peasantry in France before the Revolution.

20 5. Outline the reforms effected by Bonaparte, giving special attention to the *Code Napoléon.*

7+13 6. What do you understand by the "Industrial Revolution" in England? Contrast the old "domestic system" with the new "factory system."

20 7. Trace the growth of the French colonial empire under the Third Republic.

20 8. After his dismissal of Bismarck, "Kaiser William II. himself directed the policy of the Empire." Sketch the main features of this policy.

20 9. Compare Sir John A. Macdonald and Sir Wilfred Laurier as "builders of Canada."

Latin Authors and Sight Translation. (Time, 2½ hours.)

A. Caesar, De Bello Gallico, Books IV. and V.

13 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; et cum iis una Commium, quem ipse Atrebatibus superatis regem ibi constituerat, cujus et virtutem et consilium probabat, et quem sibi fidelem arbitrabatur, cujusque auctoritas in iis regionibus magni habebatur, mittit.

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

11 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 *imprudentiae, arcessitam, diebus;* the mood of *intulissent.*

Value.

7 3. Translate:—

Caesar, etsi intellegebat qua de causa ea dicerentur, quaeque eum res ab instituto consilio deterreret, tamen, ne aestatem in Treveris consumere cogeretur, omnibus ad Britannicum bellum rebus comparatis, Indutiomarum ad se cum ducentis obsidibus venire jussit.

(*a.*) Account for the mood of *dicerentur, cogeretur;* the tense of *dicerentur.*

9 4. Translate:—

His aliquantum itineris progressis, cum jam extremi essent in prospectu, equites a Quinto Atrio ad Caesarem venerunt qui nuntiarent, superiore nocte maxima coorta tempestate, prope omnes naves afflictas atque in litore ejectas esse, quod neque ancorae funesque subsisterent, neque nautae gubernatoresque vim pati tempestatis possent: itaque ex eo concursu navium magnum esse incommodum acceptum.

(*a.*) Account for the case of *aliquantum, itineris.*

(*b.*) *Qui nuntiarent.* Give *four* other methods of expressing the same idea.

B. VERGIL, AENEID II., LINES 1–505.

4 5. Translate:—

nec tacui demens; et me, fors si qua tulisset,
si patrios unquam remeassem victor ad Argos,
promisi ultorem, et verbis odia aspera movi.

(*a.*) Account for the mood and the tense of *remeassem.*

8 6. Translate:—

"vos aeterni ignes, et non violabile vestrum
testor numen," ait, "vos arae ensesque nefandi,
quos fugi, vittaeque deum, quas hostia gessi:
fas mihi Graiorum sacrata resolvere iura,
fas odisse viros, atque omnia ferre sub auras,
si qua tegunt: teneor patriae nec legibus ullis.
tu modo promissis maneas, servataque serves
Troia fidem, si vera feram, si magna rependam."

(*a.*) Account for the mood of *maneas;* the case of *promissis.*

(*b.*) Explain *vittae.*

7 7. Translate:—

'heu! fuge, nate dea, teque his,' ait, 'eripe flammis.
hostis habet muros; ruit alto a culmine Troia.
sat patriae Priamoque datum; si Pergama dextra
defendi possent, etiam hac defensa fuissent.'

(*a.*) Account for the case of *dea;* the tense of *possent, fuissent.*

(*b.*) Scan the first line.

5 8. Translate:—

illis ad Troiam forte diebus
venerat, insano Cassandrae incensus amore,
et gener auxilium Priamo Phrygibusque ferebat,
infelix, qui non sponsae praecepta furentis
audierit.

(*a.*) Account for the mood of *audierit.*

8 9. Translate:—

'o socii, qua prima,' inquit, 'fortuna salutis
monstrat iter, quaque ostendit se dextra, sequamur:
mutemus clipeos, Danaumque insignia nobis
aptemus. dolus an virtus, quis in hoste requirat?
arma dabunt ipsi.'

(*a.*) Account for the case of *dextra;* the mood of *sequamur, requirat.*

(*b.*) Scan the second line.

Value.

8 10. 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.*

C. Sight Translation.

20 11. Translate:—

Caesar postquam ex Menapiis in Treveros venit, duabus de causis Rhenum transire constituit: quarum una erat, quod Germani auxilia contra se Treveris miserant, altera ne ad eos Ambiorix receptum haberet. His constitutis rebus, paulo supra eum locum quo antea exercitum traduxerat facere pontem instituit. Magno militum studio paucis diebus opus efficitur. Firmo ad pontem praesidio relicto, reliquas copias equitatumque traducit. Ubii qui antea obsides dederant atque in deditionem venerant, purgandi sui causa ad eum legatos mittunt, qui dicant non ex sua civitate auxilia in Treveros missa esse; petunt atque orant ut sibi parcat.

purgare = to excuse.

Latin Grammar and Composition. (Time, 2 hours.)

8 1. Write the accusative plural of *vis, iter, princeps;* the ablative singular of *flumen, turris;* the genitive plural of *mille, miles, manus.*

4 2. Decline together *alia navis, melior pars.*

2 3. Write the numerals *three, thirteen, three hundred, eleven.*

4 4. Compare *celer, fidelis, audacter, bonus.*

6 5. Write the first person singular perfect indicative active and the present infinitive passive of *scribo, iuvo, veto, gero, do, fero.*

6 6. Write the second singular present indicative active of *nolo, fero;* the third singular imperfect subjunctive of *proficiscor, malo;* the second plural perfect indicative active of *capio;* the second singular present imperative of *hortor.*

7 7. Write the principal parts of *dedo, consuesco, audeo, tollo, iungo, frango, proficiscor.*

7 8. Write the Latin for: (*a*) Did you see the king?; (*b*) ten miles; (*c*) in all directions; (*d*) we are of good courage; (*e*) do not leave the town; (*f*) in a loud voice; (*g*) I make war upon the enemy.

56 9. Translate into Latin:—

(*a.*) He asked me why I had not been faithful to him.

(*b.*) The enemy attacked so furiously that our men were driven out of the camp.

(*c.*) The scouts brought back word that the Germans were men of immense size and incredible valour.

(*d.*) Ambassadors were sent to Caesar by the enemy to say that they were ready to give hostages.

(*e.*) When the Gauls saw that our legions were being hard pressed they began to cross the river.

(*f.*) He asked where we preferred to dwell.

(*g.*) Caesar endeavoured to persuade the Helvetii not to leave their own territories.

AGRICULTURE. (Time, 2 hours.)

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

1. Discuss the interrelation between agriculture and the various sciences and show how the farmer may benefit from scientific knowledge.

2. What constitutes soil-fertility?

3. How does water move in the soil, and in what way can the farmer or gardener control or check the movement of water?

4. Why are legumes especially valuable as a farm crop?

5. What are the characteristics of a dairy cow? Mention the most important breeds of dairy cattle in this Province.

6. What are the main points to be considered in the feeding of animals?

7. How would you arrange a storage place for milk and cream so that these commodities may keep sweet?

8. Give the life-history of, and prescribe treatment for, the insect which does the most damage in your locality.

FRENCH TRANSLATION. (Time, 2 hours.)

Value.

25 1. Translate:—

HAYMAKING.

L'herbe coupée, on ne la rentre pas tout de suite, comme vous savez. Il faut d'abord la faire sécher au soleil en la retournant avec des râteaux. Cela s'appelle faner et la fenaison est l'un des plus jolis travaux champêtres et des moins durs. Les femmes et les enfants s'en mêlent; tout le monde fane, en batifolant. Il y a une lettre célèbre de Madame de Sévigné dans laquelle elle raconte la fenaison en Bretagne, de son temps. Excepté dans les provinces où la machine a tout envahi, les choses n'ont guère changé depuis elle. Ce sont les mêmes râteaux, les mêmes cris joyeux dans le foin parfumé. et pour ramener le foin dans les granges, les mêmes chars antiques, empilés jusqu'au faîte.

râteau—rake.
batifoler—to play, to frolic.
faîte—top.

20 2. Translate:—

(*a.*) We have been sitting in the shade of the green foliage for half an hour.

(*b.*) When we arrive at the landing point next week, he and I will throw the parcels on the wharf.

(*c.*) Everybody was delighted with the view when the steamboat passed opposite the lighthouse.

(*d.*) I know her face very well but I do not know her name.

25 3. Answer the following questions in French (about twenty words each):—

(*a.*) Quelle est l'étude que vous avez préférée pendant vos années d'école et pourquoi?

(*b.*) Quelle date tombe votre anniversaire et quels cadeaux aimez-vous recevoir à cette occasion?

(*c.*) Si un incendie éclate dans votre école pendant les heures de classe, que faut-il faire?

(*d.*) Que peut-on voir d'intéressant dans un port de mer?

Value.

30 4. Write in French (about a page) a *conversation* with a friend of which the following is the material to be used:—

You have just returned from a journey—your friend meets you and asks you how you are, whether you enjoyed your journey—you reply that you are glad to see your friend again, that he (she) looks well. You tell him (her) about your journey—he (she) puts in a question or a remark from time to time—finally he (she) says you are very lucky to have had such a trip and that he (she) is very glad to have you back again.

French Grammar. (Time, 2 hours.)

5 1. In the following phrases replace the noun used by the noun given in parentheses, and make any modifications rendered necessary by this change:—

Une femme tranquille (homme).
Un soldat joyeux (musique).
Un chat roux (dame).
Un gentil petit garçon (fille).

20 2. Put into French:—

(*a.*) What would have become of us?
(*b.*) He has been a pupil there for a week.
(*c.*) You must have seen her.
(*d.*) That's not worth the trouble.
(*e.*) We arrived there in less than three hours.
(*f.*) How glad I am!
(*g.*) Come as soon as possible.
(*h.*) I will go there willingly.
(*i.*) You arrive before the time.
(*j.*) At the same time.

10 3. Put the italicized portion of the following passage into the plural:—

Le cheval est un animal que *j'aime* beaucoup. *Il travaille* bien dans *mon* pays où *il traîne un lourd bateau* sur *le canal.* Parfois *il souffre* car *le clou de son sabot lui fait* mal.

10 4. Explain in French the following words:—

Le Midi; la vitre; la mouette; la loge; la plage.

10 5. Make sentences showing the use of:—

Plus tôt; plutôt; pour la plupart; toutefois; d'ici là; où (as a relative pronoun); essayer (followed by infinitive); passer le temps (followed by infinitive); désirer (followed by infinitive); assez and infinitive meaning enough: e.g., There is enough poison to kill a man (du poison).

20 6. Put into French:—

(*a.*) Give me some.
(*b.*) Have you a book? Give it to him.
(*c.*) He is taller than Jean.
(*d.*) It is half-past two.
(*e.*) He went to them.
(*f.*) He introduced them to me.
(*g.*) Where is your book? This is mine.
(*h.*) No one loves me.
(*i.*) Give me another pen. This is no good.
(*j.*) What you say interests me.

Value.

25 7. I shall send you a post card (carte postale) as soon as I arrive and you ought to receive it a week from to-day. We shall go to bathe in the sea every day and perhaps we shall fall asleep on the beach. I have taught my brother to swim. I gave him ten lessons and after the tenth he swam fifty metres. Now he ought not to fear the sea. We ride our bicycles, skip with a rope, run on the beach and lie in the sun. Soon, alas, the holidays will be over and we must return to school. We pack our trunks sadly and take the train to Paris. As we look out of the window we say good-bye to the fields, the hay-stacks, the farmers and peasants. If I had plenty of money I would live in the country all the year round.

(pack our trunks = *faire nos malles.*)

GEOMETRY. (Time, 2½ hours.)

[N.B.—*Draw neat diagrams; use printed capitals. Authorities may be cited by number or enunciation.*]

17 1. Make an *accurate* construction of the following, omitting explanation or proof, but showing the necessary construction lines:—

Describe a triangle having sides ¾, 1, and 1¼ inches long. Then about a circle 2 inches in diameter circumscribe a second triangle which shall be equiangular to the one you have constructed.

17 2. Make an *accurate* construction of the following, and give proof:—

On a line 1½ inches long describe a segment of a circle which shall contain an angle of 45°. (Protractor may be used.)

12 3. (*a.*) The opposite angles of any quadrilateral inscribed in a circle are supplementary.

3 (*b.*) What theorem may be deduced from the preceding by allowing two consecutive vertices of the quadrilateral to become coincident? Give reasons.

10 4. Construct a square equal in area to five times a given square. Give proof.

16 5. (*a.*) If the vertical angle of a triangle is bisected externally, the bisector divides the base into segments which have the same ratio as the other sides of the triangle.

8 (*b.*) In the triangle ABC, AB = 5, AC = 4, BC = 2. The bisector of the exterior angle at A meets BC produced at D. Find the length of BD.

17 6. From any point P on the circumference of a circle PD, PE, and PF are respectively perpendicular to the chord QR, to the tangent at Q, and to the tangent at R. Show that PD is a mean proportional between PE and PF.

CHEMISTRY. (Time, 2 hours.)

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

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

2. Give an account of the preparation, physical and chemical properties, and uses of (*a*) hydrogen sulphide, (*b*) ozone.

3. Describe, with equations, one method for the preparation of hydrogen chloride. What are the properties of this substance? What is the solution of hydrogen chloride in water called?

4. Explain clearly what is meant by each of the following terms and give one example of each: Acid radical, endothermic reaction, reversible reaction, bivalent element.

5. Describe fully, with equations, one laboratory method for the preparation of carbon dioxide. What are the physical and chemical properties of the substance?

6. After neutralizing a solution of sodium hydroxide with nitric acid and evaporating the solution there remain 100 grams of sodium nitrate. What weight of each substance is used?

7. How many grams of nitrous oxide can be prepared from 20 grams of ammonium nitrate? What volume does the dry gas occupy at 17° C. and 1,520 mm. pressure?

8. Name and give the formulæ of the first two members in each of the three series of the hydrides of carbon you have studied. How is the formula of any one of these substances related to that of the preceding member of the same series? Write the equation for the preparation of any one of them.

Atomic weights: H = 1, O = 16, S = 32, C = 12, Na = 23, N = 14.

ALGEBRA. (Time, 2½ hours.)

Value.

12 1. Factor :—

(a.) $12 - 15a + 16x - 20ax$.

(b.) $27y^3 - 512$.

(c.) $9x^{5n} - x^{3n}$.

(d.) $x^2 - 4y^2 + 9 - 6x$.

12 2. Simplify :—

(a.) $\dfrac{2 - \frac{9}{2}}{(\frac{1}{2})^2 - (\frac{1}{2})^3 - 12(\frac{1}{2})^4}$.

(b.) $\dfrac{2 + \dfrac{a}{b}}{\dfrac{(a-2b)^2}{4ab} + 2}$.

12 3. Solve :—

(a.) $\dfrac{x^2}{2x^3 - 2} = \dfrac{2x}{3x^2 + 3x + 3} - \dfrac{1}{6x + 6}$.

(b.) $.12(2x + .05) - .15(1.5x - 2) = 0.246$.

12 4. (a.) One-sixth of a man's age 8 years ago equals $\frac{1}{8}$ of his age 12 years hence. What is his age now?

(b.) It costs as much to sod a square piece of ground at 20 cents per square yard as to fence it at 80 cents a yard. Find the side of the square.

14 5. Solve :—

(a.) $\dfrac{1}{m} + \dfrac{1}{n} - \dfrac{1}{p} = 1$

$\dfrac{1}{m} + \dfrac{1}{n} + \dfrac{1}{p} = \frac{2}{3}$

$\dfrac{1}{m} - \dfrac{1}{n} + \dfrac{1}{p} = 0$.

(b.) $2x^2 - \dfrac{11x}{2} - \dfrac{15}{2} = 0$.

12 6. One side of a right-angled triangle is 7 feet shorter than the other and the area is 30 square feet. Find the two sides and the hypotenuse.

Value.

14 7. (*a.*) Simplify: $\sqrt{x^3y^3} - x^2y^2\sqrt{\frac{1}{xy}} + xy\sqrt{2+\frac{x^2+y^2}{xy}}$.

(*b.*) Find a quantity such that when it is added to each of the quantities 11, 17, 19, 23 the results are in proportion.

12 8. (*a.*) Is the point (3,4) on the line whose equation is $3x-4y=12$? Give the reason for your answer.

(*b.*) Solve graphically: $2x+y=1$
$y^2+4x=17$.

Check the result.

ENGLISH COMPOSITION. (Time, 2 hours.)

[*Candidates are reminded that they are expected to spell and to 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.*]

25 1. Rewrite the following sentences in better form, giving reasons for the changes you make:—

(*a.*) While admitting my opponent's ability, it is impossible to agree with him.

(*b.*) I met him on the street, when he told me that I had failed to pass my examination, and yet I studied hard for it.

(*c.*) I was wandering aimlessly down the street, when I saw a most pitiful spectacle, the other day.

(*d.*) I admire a good football player because it is such a manly sport.

(*e.*) He would not reply until he had closed the door, and locking it.

75 2. Write an essay (of about 300 words) on *one* of the following topics:—

My Opinions on Jaques and Cynics in General.

Eppie's Influence on Silas Marner.

Camelot as a City of Magic.

The Chief Character in *Kenilworth.*

Nelson as Leader of Men.

British Columbia's Future.

Cross-word Puzzles.

PHYSICS. (Time, 2 hours.)

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

1. (*a.*) Make a drawing of a simple lift-pump. By reference to this explain how the pump works and calculate the height to which a perfect lift-pump would lift water when the mercury barometer stands at 29 inches. Indicate this height on your diagram. Relative density of mercury is 13.6.

(*b.*) An open vessel contains 100 grams of air when the barometer stands at 740 mm. What mass of air does it contain at the same temperature when the barometer stands at 760 mm.?

2. (*a.*) Describe by reference to a diagram a case of the refraction of water waves. Define refraction and show clearly how it is caused in this case.

(*b.*) A certain tuning-fork sets up a wave-length of 100 cm. in air at a temperature of 20° C. If the velocity of sound in air at 0° C. is 332 metres per second and it increases 60 cm. per second for a rise of 1° C., calculate the frequency of the fork.

3. (*a.*) Define the following terms: Absolute zero, B.T.U., boiling-point, convection currents.

(*b.*) If 100 grams of copper, specific heat 0.094, are heated to 100° C. and are then placed in 200 grams of a liquid of specific heat 0.1, calculate the final temperature of the mixture if the liquid at first is at 20° C.

4. (*a.*) Describe clearly a method of comparing the illuminating power of a lamp with that of a candle.

(*b.*) The index of refraction from air to water is $^4/_3$, and from air to crown glass is $^3/_2$. If the velocity of light in water is 139,500 miles per second, calculate its velocity in crown glass.

5. (*a.*) Prove that the focal length of a convex spherical mirror is one-half its radius of curvature.

(*b.*) Discuss the following terms: (1) Induced magnetism (explain clearly how to test the polarity of the temporary magnet); (2) the magnetic field of the earth.

6. (*a.*) Explain the action of a simple electrical condenser. Make a drawing to illustrate your answer.

(*b.*) Plates of copper and platinum are dipped into a solution of copper sulphate and a current is passed through the cell from the copper to the platinum. Describe the effects produced and also what happens when the current is reversed.

7. (*a.*) Make a diagram of the essential parts and electrical connections of any instrument depending on the electro-magnet. How does it work?

(*b.*) A current is flowing through a rigid copper rod. How would you place a small piece of iron wire with respect to it so that the iron may be magnetized in the direction of its length? Make a diagram, mark the direction of the current through the rod, and indicate the north pole of the wire.

GERMAN GRAMMAR. (Time, 2 hours.)

Value.

8 1. Rewrite the following sentence in all persons and genders, making the adjective agree with the subject, and using all possible forms of the pronoun: *Ich gebe dir meinen Bleistift.*

10 2. Put into German:—

(1.) He comes into the room.
(2.) He goes up to the table.
(3.) He is sitting on a chair.
(4.) He came during the night.
(5.) He came without his book.
(6.) He plays with his dog.
(7.) He works for his father.
(8.) He stands behind the table.
(9.) He goes out of the house.
(10.) He goes through the park.

Value.

10 3. Insert appropriate adjectives or articles and fill in correct endings, then rewrite both sentences in the plural :—

(1.)—schon—Haus mit—groß—Fenster steht in—lang—Straße an—ander—Ende—alt—Stadt.

(2.)—klein—Mädchen spielt mit—schwarz—Hund und mit—grau—Katze unter—schattig—Baum in—groß—Garten.

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

(1.) Er liest das Buch.

(2.) Er verläßt das Zimmer.

(3.) Du nimmst die Feder.

(4.) Ihr geht hinaus.

(5.) Sie beantworten den Lehrer.

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

(1.) Es wachsen schnell.

(2.) Er ankommen heute.

(3.) Du sprechen laut.

(4.) Er essen sein Frühstück.

(5.) Er treten herein.

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

10 6. Put into German :—

(1.) My brother is as tall as yours.

(2.) Your exercise is better than mine.

(3.) The best shops are in the largest cities.

(4.) The most careful students write best.

(5.) I like to study, I prefer to play, but I like to read best of all.

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

(1.) Dein Brief war interessant. Du erzähltest darin von Deiner Reise.

(2.) Die Stadt hat einen bedeutenden Handel. Ihr Hafen ist sehr groß.

(3.) Der Mann ist mein Freund. Ich besuchte ihn gestern.

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

(1.) Sie gingen spazieren. Sie wollten etwas frische Luft atmen. (denn.)

(2.) Man kommt in einen fremden Stadt an. Man fährt nach einem Hotel. (wenn.)

(3.) Sie haben nicht versucht den Dom zu beschreiben. Es war ihnen nicht möglich. (weil.)

18 8. Put into German :—

The diligent student gets up in the morning not later than half past seven. After he has washed and dressed himself, he eats his breakfast quickly, for he wishes to go to school at a quarter to nine. There he has classes until noon, when he goes home for lunch. If he has no classes in the afternoon, he can take a walk or play tennis after he has studied for a couple of hours. In the evening he must study again until he gets tired, then he goes to bed and falls asleep at once.

Value.
18 9. Put into German :—

(1.) You (sing.) can learn German if you want to.

(2.) That book is not yours, it is mine ; please give it to me.

(3.) What one eats on the train often tastes better than what one eats at home.

(4.) We left for Victoria on Wednesday, the twenty-fourth of May, 1925, at 10.30 a.m. (numbers in full).

(5.) I know that he knows German and that he knows many Germans.

(6.) He thought that he had brought enough money with him.

Botany. (Time, 2 hours.)

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

1. By diagrams, with brief descriptions, show the distinctions between monocotyledons and dicotyledons in seeds, stems, leaves, and flowers.

2. How do our plants prepare for winter conditions?

3. Arrange ferns, fungi, mosses, algæ, and club-mosses in the order of their complexity, and give reasons for your answer.

4. (*a.*) What is meant by transpiration?

(*b.*) In what ways is transpiration of importance in the life of a plant?

(*c.*) Describe four modifications in plant structure which may influence the rate of transpiration.

5. Give diagrams to illustrate the flower structure of one member of each of the following families. Choose specific examples and use either diagrammatic longitudinal sections or floral diagrams. Label fully.

(*a*) Rosaceæ; (*b*) Scrophulariaceæ; (*c*) Gramineæ; (*d*) Labiatæ.

6. What is the advantage of each of the following: The *colours*, the *odours*, the *shapes*, and the *duration* of flowers?

German Translation. (Time, 2 hours.)

Value.
60 1. Put into English :—

(*a.*) Aber die Königin war eine sehr kluge Frau, die mehr tun konnte als in einer Karosse fahren. Sie nahm ihre große goldene Schere, schnitt ein großes Stück Seidenzeug und machte einen kleinen Beutel, den füllte sie mit feiner Buchweizengrütze, band ihn auf den Rücken der Prinzessin und schnitt dann ein kleines Loch in den Beutel, so daß die Grütze den ganzen Weg, den die Prinzessin passierte, bestreuen konnte.

(*b.*) Da war er ganz beschämt und steckte den Kopf unter den Flügel ; er wußte selbst nicht, was er tun sollte ; er war sehr glücklich, aber gar nicht stolz. Er dachte daran, wie man ihn gebissen und geschlagen hatte, und hörte nun alle sagen, daß er der schönste aller schönen Vögel sei. Da hob er den schönen, langen Hals und rief: „So viel Glück habe ich mir nicht träumen lassen, als ich noch das häßliche Entlein war!"

(*c.*) Jetzt mußten die zwei Öchslein für ihrer drei arbeiten. Was ihnen aber, nebst Püffen, Schlagen, Hungerleiden, das Leben vollends verleidete,

Value.

das war das Heimweh nach dem braven Hans. Sie trauerten und wurden verstockt und taten alles verkehrt. Deshalb sprach der Peter leise zu seinem Weib: „Die Ochsen sind mir auch verhext." Bald wurden die Eheleute eins, daß sie das Paar für ein Spottgeld dem Metzger verkauften; der schlachtete sie in der Stadt.

(*d.*) Ich fand ein Bett zu süßer Ruh'
Auf weichen, grünen Matten;
Der Wirt, er deckte selbst mich zu
Mit seinem kühlen Schatten.

Nun fragt' ich nach der Schuldigkeit,
Da schüttelt' er den Wipfel.
Gesegnet sei er allezeit
Von der Wurzel bis zum Gipfel!

(*e.*) Der König stieren Blicks da saß,
Mit schlotternden Knien und totenblaß.

Die Knechtenschar saß kalt durchgraut,
Und saß gar still, gab keinen Laut.

Die Magier kamen, doch keiner verstand
Zu deuten die Flammenschrift an der Wand.

Belsazar ward aber in selbiger Nacht
Von seinen Knechten umgebracht.

(*f.*) Und als der frühe Morgen in Osten kaum gegraut,
Da hat ein seltnes Schauspiel im Lager man geschaut:
Es öffnet leise, leise sich das bedrängte Tor,
Es schwankt ein Zug von Weibern mit schwerem Schritt hervor.
Tief beugt die Last sie nieder, die auf dem Nacken ruht,
Sie tragen ihre Ehherrn, das ist ihr liebstes Gut.
„Halt an die argen Weiber!" ruft drohend mancher Wicht;
Der Kanzler spricht bedeutsam: „Das war der Meinung nicht."

10 2. Translate at sight:—

Ein Bienchen trank aus einem Bach und fiel in das Wasser. Das sah eine Taube, die auf einem Baum saß. Schnell brach sie ein Blatt von dem Baum und warf es in den Bach. Das Bienchen schwamm nach dem Blatte und half sich glücklich aus dem Wasser. Nach einiger Zeit saß die Taube wieder auf demselben Baum. Da kam ein Jäger und wollte die Taube schiessen. Als das Bienchen den Jäger sah, flog es schnell herbei, stach den Jäger in die Hand, und—puff! ging der Schuß in die Luft. So vergalt das Bienchen der Taube ihre Wohltat.

12 3. Put into German:—

Once there was a lazy boy who did not like to go to school. But he had to go because his father wished it. He could never do his lessons well in class, for when the others were working, he would never pay attention. So he often had to stay in after school and study while the others played.

18 4. Write in German a description of the city or district in which you live (about half a page).

Grade XI., Normal Entrance.

GEOGRAPHY. (Time, 2 hours.)

[*Answer questions 1, 2, 3, 4, and* any two *of questions 5, 6, 7. Illustrate answers, whenever possible, by sketch-maps or diagrams.*]

Value.

10 1. (*a.*) The longitude of two locations is each 110° west. The latitude of one is 30° north and the other is on the Arctic circle. How many miles (approximately) are the locations apart?

(*b.*) Explain the following: *isobars, igneous rock, doldrums.*

(*c.*) When do *neap tides* occur?

10 2. Describe clearly the production of *either* rice *or* raw cotton under the following headings:

(*a.*) Climatic conditions.

(*b.*) Method of cultivation.

(*c.*) Economic value and principal producing countries.

20 3. (*a.*) Write comprehensively on one of the following topics:—

The Fisheries of the Atlantic Coast of Canada.
Canada's Export Trade.
Transportation Facilities of Canada.

(*b.*) Name and locate the most productive Canadian mine for each of the following: *gold, nickel, lead-zinc, asbestos.*

(*c.*) "Canada is the land of the future." Why?

20 4. (*a.*) Account for the greatness of Great Britain as an industrial and commercial nation.

(*b.*) Name and locate five of the great industries of England. Associate at least one city with each.

(*c.*) The greatness of London "is due to many causes." Enumerate these.

20 5. Sketch a map of the Mississippi River System and the Great Lakes. On this mark the location of:—

(*a.*) The corn, rice, and tobacco producing areas.

(*b.*) The twelve largest cities. Select any *four* of these and account for the importance of each.

20 6. Describe Brazil *or* India under the following headings:—

(*a.*) Surface and drainage.

(*b.*) Climate.

(*c.*) Principal products and important cities.

(*d.*) Trade.

20 7. Answer the following in regard to "Lumbering in British Columbia":—

(*a.*) Where are the most valuable forests situated? Why?

(*b.*) What are the principal trees cut by the lumbermen? What qualities make them marketable?

(*c.*) Where are four of the largest sawmills?

(*d.*) Where do the lumbermen sell their finished product?

(*e.*) What was the approximate timber cut for 1924 (in board-feet)?

(*f.*) What was the total estimated damage in 1924 through forest fires?

Grade XII., Senior Matriculation.

BIOLOGY. (Time, 3 hours.)

[*Questions are of equal value. Answer* five *only. Illustrate your answers with diagrams.*]

1. Write a brief account of the characteristics which are common to both plants and animals. How would you differentiate between plants and animals? Illustrate your answer by a description of a unicellular plant and a unicellular animal.

2. What is meant by the "alternation of generations"? Describe fully the life-history of a plant *and* of an animal to illustrate your answer.

3. Give five examples of cells (either plant or animal) which have become specialized for the performance of particular functions. By what modifications is each cell dealt with above specially adapted to the work which it performs?

4. (*a.*) What is meant by osmosis?
   (*b.*) Discuss the importance of osmosis in the life-processes of plants and animals.

5. Explain what is meant by the "Law of Recapitulation" and give three examples.

6. Describe *either* the pectoral girdle and forelimbs *or* the pelvic girdle and hind limbs of the frog.

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

Value.

1. Put into German :—

18 (*a.*) The most interesting thing that the American students did in Germany was to take a trip up the Rhine. The boat left Cologne at half-past nine in the morning and did not arrive in Rudesheim until nine o'clock in the evening, so they spent the whole day on the beautiful and romantic river. The sides of the mountains were covered with vineyards and almost every peak was crowned with an old castle. These splendid buildings, towering up so proudly from out the green forests, were not only picturesque to look at, but also called up many old legends and tales.

15 (*b.*) During their stay in Germany the two Americans learned many new things about the country and the people, although they found that in such a short time they could not see all that they would have liked to see. If they had been able to stay longer, they would have spent more time in South Germany, for they thought it was most beautiful. But they also found many interesting things to see in Berlin and wished that they could stay there for a whole winter.

16 2. Put into German :—

(1.) Paul's uncle, whose eldest son had been in America, could speak English.

(2.) What they liked best in Germany was the arrangement of the trains.

(3.) They finally succeeded in finding their relatives.

(4.) I am sorry, but I don't care for that book at all.

(5.) One likes to do what is pleasant, one ought to do what is right.

(6.) They had to hurry, for their train was to leave in half an hour.

(7.) They had had their luggage sent to the hotel, because they were not able to carry it.

(8.) We have not been permitted to speak English in our German class.

Value.

9 3. Construct sentences (third person singular) using the following verbs in the present, perfect, and future tenses: hereinkommen; sich erinnern; übersetzen.

12 4. Put into German:—

(1.) Karl told him that the castle was at the other end of the town.
(2.) Fritz said that he had never seen such a beautiful park.
(3.) His uncle said that he would go with them to Berlin.
(4.) If it rains to-morrow, I shall not go.
(5.) One could see more, if one could travel more slowly.
(6.) If they had gone to Heidelberg, they would have visited the old castle.

6 5. Rewrite in the passive:—

(1.) Sein Freund schreibt ihm einen langen Brief.
(2.) Man wird immer das Goethe-Haus besuchen.
(3.) Man hat den Römer im 15. Jahrhundert gebaut.

24 6. Write in German (about 20 lines) a description of Germany, *or* the story of the Mousetower.

ENGLISH LITERATURE. (Time, 3 hours.)

14 1. With definite references to incidents in the story, discuss the skill shown in differentiating the characters in "The Sire de Malétroit's Door" *or* "On Greenhow Hill."

14 2. Within two pages, write a comparison of the two plays, "Electra" and "Julius Caesar," showing the main differences between the drama of the Greeks and that of Shakespeare.

10 3. What is meant by Foreshadowing and Dramatic Irony in the Drama? Illustrate your answer with two examples of each from "The School for Scandal."

14 4. Set forth the principal incidents in "A Doll's House" that show the gradual development of Nora Helmer.

14 5. Within two pages, set forth the chief characteristics of the poetry of Rupert Brooke *or* of Thomas Hardy.

12 6. On *one* of the following themes write an essay setting forth some of the ideas found in "An Anthology of Modern Verse":—

(*a.*) The Poet's Love for the Open Road.
(*b.*) The Relationship between Man and his Creator.

10 7. Quote a passage of about fourteen lines and write notes pointing out its particular virtues or beauties.

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

(*a.*) The Setting in "Ethan Brand."
(*b.*) The Importance of Jupiter in "The Gold-Bug."
(*c.*) Pathos in "Rab and his Friends."

PHYSICS. (Time, 3 hours.)

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

1. An accelerating force of 10 lb. acts on a mass of 120 lb. for 5 seconds starting from rest. Find the acceleration, velocity at the end of the 5 seconds, the distance traversed, and the work done (expressed in two different units).

2. (*a.*) How long a plank will be needed to enable us to roll an iron safe weighing 1½ tons into a wagon 3 feet high with a pull of 600 lb. parallel to the incline? What is the mechanical advantage?

   (*b.*) A block of stone weighs 1,656 lb.; its volume is 10 cubic feet. What is its density and how much will it weigh when suspended in water?

3. (*a.*) Define, briefly, the terms cohesion, viscosity, capillarity, surface tension, and osmosis.

   (*b.*) How does the molecular theory explain the expansion of a substance when heated and the cooling effect of the evaporation of a liquid?

4. (*a.*) Define the terms relative humidity, critical temperature, mechanical equivalent of heat and efficiency of a steam-engine.

   (*b.*) A litre of hydrogen at standard temperature and pressure weighs .0896 gram. Find the weight of a cubic metre of hydrogen at 15° C. and 80 cm. pressure.

5. (*a.*) Show how the pitch of both open and closed organ-pipes may be determined and why the quality of the sounds given by them is different.

   (*b.*) A certain stretched wire has a frequency of 256 vibrations per second. What would be its frequency if it were (1) twice as long, (2) stretched with twice the force?

6. (*a.*) Define focus, index of refraction, bright line spectrum, and magnifying power of a simple microscope.

   (*b.*) An object is placed 15 cm. in front of a spherical mirror and its image is found to be 40 cm. behind the mirror. Find, from the mirror formula, the focal length of the mirror and whether it is concave or convex; then draw a diagram, roughly to scale, showing why the image is so placed.

7. (*a.*) Different wave lengths in ether radiations manifest themselves as entirely different phenomena. Name these different phenomena which have been investigated and give some idea of the wave length in each case.

   (*b.*) When looking at a building through the ordinary glass of a window, why do straight lines of the building appear so distorted? What makes them appear to move as you move your head slightly?

8. (*a.*) Explain the construction and action of an electrical condenser.

   (*b.*) What is the fundamental difference in the construction of alternating and direct current dynamos?

9. An electric iron takes 6 amperes at 110 volts. Find its resistance, the cost of operating it for one hour at 6 cents per kilowatt-hour, the number of calories of heat it generates every second, and its power consumption expressed in horse-power.

10. (*a.*) Draw a diagram of an ordinary electromagnet, showing clearly the direction of the current and the position of the poles. How could you wind a wire around a piece of iron in such a way that no magnetic poles would be formed when a current is passed through the wire?

    (*b.*) State the laws of electrolysis.

(A maximum of 15 marks will be allowed for a properly certified laboratory note-book.)

TRIGONOMETRY. (Time, 3 hours.)

Value.

12 1. (*a.*) Express 51° 17′ 45″ as a decimal of a right angle to 5 places of decimals.

(*b.*) Prove $3 \tan^2 30° + \frac{4}{3} \cos^2 30° = \frac{1}{2} \sec^2 45° + \frac{1}{3} \sin^2 60° + \frac{3}{4} \sin 90°$.

(*c.*) Prove $\sin^4 \theta + \sin^2 \theta = 2 - 3 \cos^2 \theta + \cos^4 \theta$.

12 2. A man observes a spire in a direction E. 10° N. He walks 500 yards to the S.E. and observes that the bearing of the spire is N.E. How far is he now from the spire? Given $\tan 55° = 1.4280$.

12 3. (*a.*) Solve $2 \sin A \tan A + 1 = \tan A + 2 \sin A$.

(*b.*) Prove $\cos (180° - A) = -\cos A$. (Use a diagram.)

16 4. (*a.*) In any triangle prove $\dfrac{a}{\sin A} = \dfrac{b}{\sin B} = \dfrac{c}{\sin C}$.

(*b.*) In any triangle prove $\tan \dfrac{A - B}{2} = \dfrac{a - b}{a + b} \cot \dfrac{C}{2}$.

(*c.*) Prove $\cos (A + B) = \cos A \cos B - \sin A \sin B$.

12 5. Prove $\dfrac{\sin x + \sin 2x + \sin 3x}{\cos x + \cos 2x + \cos 3x} = \tan 2x$.

18 6. Given $A = 37° 27'$, $B = 72° 11'$, $a = 10$, find c.

$\sin 37° 27' = .6081$	$L \sin 37° 27' = 9.7840$	$\log 155 = 2.1900$.
$\sin 70° 22' = .9419$	$L \sin 70° 22' = 9.9740$	
$\sin 72° 11' = .9520$	$L \sin 72° 11' = 9.9787$	

18 7. Given $a = 681$, $c = 243$, $B = 50° 42'$, find the angles A and C. (Use 4(*b*).)

$\log 438 = 2.64147$	$\log \cot 25° 21' = 0.32443$
$\log 924 = 2.96567$	$\log \tan 45° 0' 57'' = 0.00023$

LATIN PROSE COMPOSITION, SIGHT TRANSLATION, AND ROMAN HISTORY.

(Time, 3 hours.)

A. LATIN PROSE COMPOSITION.

50 Translate into Latin:—

(*a.*) We would rather die free than live as slaves.

(*b.*) You will scarcely venture to deny that duty was sometimes at variance with interest.

(*c.*) He promised to supply the army with food and clothing.

(*d.*) The exiles believed that they had reached the locality from which their forefathers were sprung.

(*e.*) He pretended that it was not for the sake of gain but of friendship that he had given me all the books which his brother had left.

(*f.*) All the world believes that the moon moves round the earth.

(*g.*) The island is surrounded by the sea which you call the ocean.

(*h.*) You cannot, said he, injure your country without bringing loss and ruin to yourself and your own affairs.

(*i.*) So far am I from having said everything, that I could take up the whole of the day in speaking; but I do not wish to be tedious.

(*j.*) And therefore, my country-men, do not believe that I, who have so often led you to the field of battle, am afraid to-day of fortune leaving me.

B. SIGHT TRANSLATION.

Value.

35 Appio Claudio consule coeptum est primum adversus Poenos bellum. Cum Messanam, Siciliae urbem, Carthaginienses et Hiero, rex Syracusanus, obsiderent, Appius Claudius ad Messanam liberandam missus est. Consul primo ad explorandos hostes nave piscatoria traiecit fretum inter Italiam et Siciliam interiectum. Ad quem venerunt nuntii ab Hannone, Poenorum duce, hortantes ad pacem conservandam. Cum vero consul nullas condiciones admitteret, nisi Poeni ab oppugnatione desisterent, iratus Hanno exclamavit, se non esse passurum Romanos vel manus in mari Siculo abluere. Non tamen potuit prohibere, quin Claudius in Siciliam legionem traduceret, et Poenos Messana expelleret. Deinde Hiero apud Syracusas victus est. Qui eo periculo territus Romanorum amicitiam petiit, et in eorum societate postea constanter permansit.

C. ROMAN HISTORY.

15 1. What were the causes of the Plebeian struggle for political equality? Write notes on the Tribunes of the People, and on the Assembly of the Tribes, showing the effects of these institutions on popular liberty.

2. Write a short story of Hannibal's march into, and campaign in, Italy.

3. Give a short account of the trial of Gaius Verres.

ALGEBRA. (Time, 3 hours.)

12 1. Solve:
$$x^3+y^3=351$$
$$x^2-xy+y^2=39.$$

14 2. The distances which a man travels in successive days are in A.P. At the end of the 5th day he has gone 100 miles and at the end of the 7th day 150 miles. How long will he take to complete 300 miles in all?

12 3. In a G.P. the first term is 7, the last is 448, and the sum is 889. Find the series.

12 4. (*a.*) If $15x^2+2xy-8y^2=0$, find $x:y$.

(*b.*) Solve: $\dfrac{(2x+3)^3+(x-1)^3}{(2x+3)^3-(x-1)^3}=\dfrac{65}{63}$.

12 5. The weight of a sphere varies as its density and the cube of its radius. The densities of two spheres are as 2:3 and their radii as 15:7. If the weight of the first is 50 lb., find the weight of the second.

14 6. (*a.*) Find the equation whose roots are m and n when $m+n=10$ and $mn=16$.

(*b.*) If $(m-1)x^2-(4m+4)x+7m+1=0$ has equal roots, find m.

12 7. (*a.*) In how many ways can 7 quarters and 5 ten-cent pieces be given to 12 boys, one coin to each?

(*b.*) In a town there are three different letter-boxes. In how many ways can 5 letters be posted?

12 8. (*a.*) Find the coefficient of x^{-15} in $\left(x+\dfrac{1}{x^2}\right)^{12}$.

(*b.*) Expand $(1+2x)^{-\frac{3}{2}}$ to four terms.

Latin Authors. (Time, 3 hours.)

Value.

16 1. Translate:—

Difficile est dictu, Quirites, quanto in odio *simus* apud exteras nationes propter eorum, quos ad eas per hos annos cum imperio misimus, libidines et iniurias. Quod enim fanum putatis in illis terris nostris magistratibus religiosum, quam domum satis clausam ac munitam fuisse? Urbes iam locupletes et copiosae requiruntur, quibus causa belli propter diripiendi cupiditatem *inferatur*. Libenter haec coram cum Q. Catulo et Q. Hortensio, summis et clarissimis viris, *disputarem*. Noverunt enim sociorum volnera, vident eorum calamitates, querimonias audiunt. Pro sociis vos contra hostis exercitum mittere putatis, an hostium simulatione contra socios atque amicos? Quae civitas est in Asia quae non modo imperatoris aut legati, sed unius tribuni militum animos ac spiritus capere *possit?*

(1.) Account for mood of *simus, inferatur, disputarem, possit.*

(2.) What was, generally, the nature of Roman administration of conquered provinces in Cicero's time?

20 2. Translate:—

Verum ubi ductores acie *revocaveris* ambo,
Deterior qui visus, eum, ne prodigus obsit,
Dede neci; melior vacua *sine regnet* in aula.
Alter erit maculis auro squalentibus *ardens;*
Nam duo sunt genera: hic melior, insignis et ore
Et rutilis clarus squamis; ille horridus alter
Desidia, latamque trahens inglorius alvom.
Ut binae regum facies, ita corpora plebis.
Namque aliae turpes horrent, ceu pulvere ab alto
Cum venit et sicco terram spuit ore viator
Aridus; elucent aliae et fulgore coruscant,
Ardentes auro et paribus *lita* corpora guttis.
Haec potior suboles, hinc caeli tempore certo
Dulcia mella premes, nec tantum dulcia, quantum
Et liquida et durum Bacchi *domitura* saporem.

(1.) Parse and give principal parts of *revocaveris, ardens, lita, domitura.*

(2.) Parse *sine.* Account for mood of *regnet.*

12 3. Translate:—

His quidam signis atque haec exempla secuti
Esse apibus partem divinae mentis et haustus
Aetherios dixere; deum namque ire per omnes
Terrasque tractusque maris caelumque profundum;
Hinc pecudes, armenta, viros, genus omne ferarum,
Quemque sibi tenues nascentem arcessere vitas;
Scilicet huc reddi deinde ac resoluta referri
Omnia, nec morti esse locum, sed viva volare
Sideris in numerum atque alto succedere caelo.

Scan: *Terrasque tractusque maris caelumque profundum.*

Indicate the caesura by a double vertical line.

18 4. Translate:—

'Dis equidem auspicibus reor et Iunone secunda
'Hunc cursum Iliacas vento tenuisse carinas.
'Quam tu urbem, soror, hanc cernes, quae surgere regna
'*Coniugio tali!* Teucrum comitantibus armis,
'Punica se quantis attollet gloria rebus!
'Tu modo posce deos veniam, sacrisque litatis

Value.

'Indulge hospitio, causasque innecte morandi,
'Dum pelago desaevit hiemps et aquosus Orion,
'Quassataeque rates, dum non tractabile caelum.'
His dictis incensum animum inflammavit amore,
Spemque dedit dubiae menti, solvitque pudorem.

(1.) *Coniugio tali*—account for case.

(2.) What is the usual meaning of *litare?*

14 5. Translate:—

Reginam thalamo cunctantem ad limina primi
Poenorum exspectant, ostroque insignis et auro
Stat *sonipes*, ac frena ferox spumantia mandit.
Tandem progreditur magna stipante caterva
Sidoniam picto *chlamydem* circumdata limbo:
Cui pharetra ex auro, crines nodantur in aurum,
Aurea purpuream subnectit fibula vestem.

(1.) Derivation of *sonipes?*

(2.) Account for case of *chlamydem.*

20 6. Translate:—

'Quae quibus anteferam? Iam iam nec maxima Iuno,
'Nec Saturnius haec oculis pater aspicit aequis.
'Nusquam tuta fides. Eiectum litore, egentem
'Excepi, et regni demens in parte locavi;
'Amissam classem, socios a morte reduxi.
'Heu furiis incensa feror! Nunc augur Apollo,
'Nunc Lyciae sortes, nunc et Iove missus ab ipso
'Interpres divom fert horrida iussa per auras.
'*Scilicet* is superis labor est, ea cura quietos
'Sollicitat. Neque te teneo, neque dicta refello.
'I, sequere Italiam ventis; pete regna per undas.
'Spero equidem mediis, si quid pia numina possunt,
'Supplicia hausurum scopulis, et nomine *Dido*
'Saepe vocaturum. Sequar *atris ignibus* absens;
'Et cum frigida mors anima seduxerit artus
'Omnibus umbra locis adero. Dabis, improbe, poenas;
'Audiam, et haec *manes* veniet mihi fama sub imos.'

(1.) *Scilicet*—derivation?

(2.) Case of *Dido?*

(3.) *Atris ignibus.* Explain.

(4.) Write note on *manes.*

GEOMETRY. (Time, 3 hours.)

11 1. To describe an isosceles triangle having each of the angles at the base double the third angle.

11 2. The rectangle contained by the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the rectangles contained by its opposite sides.

11 3. If any point is taken on the circumference of the circumscribed circle of a triangle, the projections of this point on the three sides of the triangle are collinear.

Value.

7 4. (*a.*) The points where the bisectors of the exterior angles at A, B, C of the triangle ABC meet BC, CA, and AB, respectively, are collinear.

7 (*b.*) In a semicircle of diameter 2 inches inscribe a square having two of its vertices on the arc and the other two on the diameter. (Give construction only.)

[N.B.—Graph paper is supplied. An accurate diagram must be drawn for each of the following questions.]

12 5. (*a.*) Find the length of the line joining (—3, —7) and (2, 5).

(*b.*) A is the point (—4, 3), B the point (1, 4), and C lies on AB produced. Given AC : CB=3 : 2, find the co-ordinates of C.

(*c.*) Find the area of the triangle (3, 0), (5, 4), (3, —2).

10 6. (*a.*) Find the equation of the line joining (—3, 7) and (2, —5).

(*b.*) Find the equation of the line through (—1, —4) having slope —¾.

12 7. (*a.*) Derive the condition that one line shall be perpendicular to another.

(*b.*) Find the equation of the line through the intersection of $3x+4y+12=0$ and $2x-3y=6$, and perpendicular to the latter line.

8 8. Find the radius and the co-ordinates of the centre of the circle $x^2+y^2-4x+6y-12=0$. Draw the circle.

11 9. Derive the equation for the tangent to a circle $x^2+y^2=r^2$ in the form $x\ x_1+y\ y_1=r^2$. Draw the tangent when $r=5$ and $(x_1, y_1)=(-3, 4)$.

French Language. (Time, 3 hours.)

30 1. Traduction :—

"Molière belongs to no nation," said a great English actor (Kemble); "one day the god of comedy, wishing to write, became a man, and happened to fall in France." I accept this; but in becoming man he found himself, at the same time, a man of the seventeenth century and a Frenchman. Only the French art of the seventeenth century could succeed in amusing honest folk, for it consists in leading by an agreeable path to general notions.

10 2. (*a.*) Français de :—

The man of whom I speak:
The table of which I think.
The boys whom I see.
Whom do you call?
I give you all I have.

(*b.*) Corrigez s'il est nécessaire :—

On a joué du violin et on a dancé au marriage du soldat. Après dinner, plusiers persons ont visité l'apartment et la gallerie de tableaux où il y a beaucoup des vielles peintures.

20 3. Français de :—

(*a.*) Before he has time to come back, will you speak to me about it?

(*b.*) She has just shut the window and is working near the fire.

(*c.*) You ought to go and see the wood in autumn.

(*d.*) The Italian captain was seen advancing towards the French lieutenant.

(*e.*) He has been speaking in prose for forty years without knowing it.

Value.

10 4. (*a.*) Placez les adverbes correctement:—

Je le vois (souvent).
Je l'ai vu (rarement).
Il est parti (hier).
Dites lui de parler (ne pas).
Il faut travailler (bien).

(*b.*) Traduisez pour la comparaison:—

His orchard is the *best* cultivated in the village and has the *best* fruit.
There are *more* than two feet of snow on the mountain.
That boy is not *so* tall *as* the others but he is the *worst* of all.

15 5. (*a.*) Traduisez avec le verbe *faire:*—

It is warm. I shall give you pleasure. He had the pupil sing. While you show the farm to the visitor, I shall have cakes made for tea.

(*b.*) Français de:—

In springtime—in time—in Paris—in Canada—in France—in the country. I have my hat in my hand—the nest is in the letter-box. Return within twenty-four hours. They are in the church.

15 6. (*a.*) Mettez le verbe au temps convenable:—

—Dès que je *revenir* on joua bien.
—Approchez afin que je vous *faire* la leçon.
—Si je *aller* à la forêt, m'accompagnerez-vous?
—Ce jeune homme *sortir* chaque soir depuis quelques semaines.
—Je lui parlerais demain, s'il *venir.*
—Voulez-vous qu'il *s'en aller.*
—Cette jument s'est-elle *blesser?*
—Les cadeaux qu'il a *offrir* sont superbes.
—Il regardait jouer les autres tout en *manger.*
—Nous répondrons quand il nous *appeler.*

(*b.*) Donnez les cinq temps primitifs (principal parts) de:—
mourait, écrirai, prendrions, sache, valût,

FRENCH LITERATURE. (Time, 3 hours.)

20 1. Traduisez le passage suivant; dites qui parle et à quel propos:—

Monsieur, la plupart des gens, sur cette question n'hésitent pas beaucoup. On tranche le mot aisément. Ce nom ne fait aucun scrupule à prendre, et l'usage aujourd'hui semble en autoriser le vol. Pour moi, je vous l'avoue, j'ai les sentiments sur cette matière un peu délicats. Je trouve que toute imposture est indigne d'un honnête homme, et qu'il y a de la lâcheté à déguiser ce que le ciel nous a fait naître, à se parer aux yeux du monde d'un titre dérobé, à se vouloir donner pour ce qu'on n'est pas. Je suis né de parents, sans doute, qui ont tenu des charges honorables. Je me suis acquis dans les armes l'honneur de six ans de services, et je me trouve assez de bien pour tenir dans le monde un rang assez passable; mais, avec tout cela, je ne veux point me donner un nom où d'autres, en ma place, croiraient pouvoir prétendre.

25 2. Donnez les principaux traits de caractère de *trois* des personnages importants de la comédie.

Value.

20 3. (*a.*) Mettez en français moderne (surtout les phrases en italique) :—

(1.) L'affaire est *dans le sac,* donc, nous n'avons que faire du *truchement.*

(2.) J'en demeure d'accord avec vous, ce coquin de valet *donne furieusement dans* les vices du temps.

(3.) Par ma foi, c'est un grand dadais, et j'espère qu'il ne s'avisera pas de venir *céans.*

(4.) Je ne saurais me tenir de rire de le voir fagoté de la sorte.

(5.) Comme je le *fus voir,* et que *j'entends* parfaitement la langue, il s'entretint avec moi.

(*b.*) Formez cinq phrases avec les expressions suivantes: de grâce!—prêter l'oreille—au premier jour—force gens—comme il faut—(donnez l'anglais).

10 4. Traduisez:—

Il ne put en dire plus long, il pleurait. L'empereur, à la lueur des feux allumés de toutes parts, vit que la jument était atteinte d'un éclat d'obus à la cuisse gauche. Il croisa les mains derrière son dos, sous les basques de sa redingote, et dit: "Guérissez-vous tous deux, je le veux! Quand vous serez guéris, allez-vous en au pays des Côtes, vous m'avez bien servi. Seulement je retiens son premier poulain pour ma garde, et, dans vingt ans d'ici, tu m'enverras ton fils à toi: j'en ferai un officier."

"Oui, mon empereur."

Cette journée rendit fier Jean-Marie pour toute sa vie, qui fut longue.

25 5. Description d'un parc que vous avez visité, ou d'un beau jardin (celui du curé de St. Philémon par exemple).

HISTORY. (Time, 3 hours.)

[*Answer any* five *questions.*]

12+8 1. Describe the work of Calvin in Geneva. Estimate his influence upon religion and politics.

15+5 2. What were the main issues involved in the struggle between Charles I. and Parliament? What was the final outcome?

5×4 3. Write notes on: (*a*) Rousseau; (*b*) Turgot; (*c*) Mirabeau; (*d*) The Declaration of the Rights of Man.

20 4. Discuss the causes of Napoleon's downfall.

10+10 5. What were the early effects of the Industrial Revolution upon the working classes in England? Mention the remedies that have been attempted.

20 6. "The Paris Revolution of 1848 proclaimed, not the 'Rights of Man,' but the rights of the working-man." Explain and discuss.

20 7. Recount the chief steps by which German unification was achieved under the direction of Bismarck.

20 8. Compare briefly the home and foreign policies of Gladstone with those of Disraeli.

20 9. Sketch the maritime and naval background of the World War.

20 10. Give a succinct account of the Russian Revolution of 1917 and summarize its results.

20 11. What appear to you to be the most important results (political, social, economic, etc.) of the World War?

ENGLISH COMPOSITION. (Time, 3 hours.)

Value.

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

(*a.*) I live two miles from college, which makes the trip to and from a short and untedious one.

(*b.*) Miss Edwards lectured with stereopticon views, at Chickering Hall, with a musical voice, her broken left arm in a sling, on Egypt, five or six thousand miles away.

(*c.*) The ship then struck a rock, she began to slowly and steadily sink, and the waves finally enveloped her.

(*d.*) I doubt very much if anyone has a harder day than this one, especially as it comes on Monday, and Sunday is not a good day for studying, even if you have no religious scruples concerning it.

(*e.*) We went home, after all our misfortunes, glad to get one night's sleep, anyhow.

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

"Every educated person has at least two ways of speaking his mother tongue. The first is that which he employs in his family, among his familiar friends, and on ordinary occasions. The second is that which he uses in discoursing on more complicated subjects, and in addressing persons with whom he is less intimately acquainted. It is, in short, the language he employs when he is 'on his dignity' as he puts on evening dress when he is going to dine. The difference between these two forms of language consists, in a great measure, in a difference in vocabulary. The basis of familiar words must be the same in both, but the vocabulary appropriate to the more formal occasion will include many terms which would be stilted or affected in ordinary talk. There is also considerable difference between familiar and dignified language in the matter of utterance. Contrast the rapid utterance of our every-day dialect, full of contractions and clipped forms, with the more distinct enunciation of the pulpit or the platform. Thus in conversation we habitually employ such contractions as I'll, don't, he'd, and the like, which we should never use in public speaking unless of set purpose, to give a markedly colloquial tinge to what we have to say."

10 3. Discuss the chief points to be considered in the planning and construction of an expository theme. Illustrate your answer by making an outline for your answer to question 4.

60 4. Write an expository essay of at least two pages on *one* of the following:—

(*a.*) One Characteristic of Contemporary Poetry.

(*b.*) Presence of Mind.

(*c.*) Cross-word Puzzles.

CHEMISTRY. (Time, 3 hours.)

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

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

1. What do you understand by the following terms: (*a*) equivalent weight; (*b*) chemical equilibrium; (*c*) dissociation; (*d*) valence; (*e*) normal solution?

2. (*a.*) Mention three different phenomena which indicate dissociation or ionization in solution.

   (*b.*) Compare the kinds of ions present when an acid, an alkali, and a salt respectively are dissolved in water, and show by means of equations what happens to the ions when an acid is neutralized by an alkali.

3. (*a.*) Compare the action of hot concentrated sulphuric acid on a chloride, on a bromide, and on an iodide.

   (*b.*) Write equations for the action of chlorine on (i) water, (ii) an aqueous solution of potassium iodide, and (iii) methane.

4. (*a.*) Describe the theory and practice of the Haber process for the manufacture of ammonia from nitrogen and hydrogen.

   (*b.*) Write by means of partial equations the complete equations for the action of (i) concentrated nitric acid and (ii) dilute nitric acid, on metallic copper.

5. (*a.*) If diamonds are a form of carbon, why are they not manufactured synthetically from carbon on a commercial scale?

   (*b.*) Write the equation illustrating the solution of limestone in water charged with carbon dioxide. What variety of hardness would this produce in water? Describe with equations two methods by which this hardness could be removed.

6. Describe briefly, with equations, the theory and practice of the manufacture of sodium carbonate or bicarbonate by either the Solvay (ammonia-soda) process or the Leblanc (salt-cake) process. What is baking-powder and how does it act?

7. Write equations for reactions occurring when aluminium hydroxide is dissolved in sodium hydroxide and hydrochloric acid respectively. Would you consider aluminium to be a metallic or non-metallic element? Explain.

8. Indicate roughly the variation of the valence of elements, with respect to both hydrogen and oxygen, as a function of their position in the periodic table. Do the same for basic and acidic properties.

9. (*a.*) Write the formula for bleaching-powder. What acid radicals does it contain? How is it made? What is the mechanism of its bleaching action?

   (*b.*) What is "superphosphate"? Write its formula. How is it made and what is it used for?

10. 3 grams of metallic zinc are dropped into 100 c.c. of 1.85 normal hydrochloric acid. What would be the normality of the acid after the zinc had dissolved?

11. What is the formula of a compound having the following composition: Fe=36.761%; S=21.106%; O=42.132%?

12. What volume would be occupied by the hydrogen obtained when 1 gram of metallic sodium is dropped into an excess of water, if measured over water at 21° C. and at 740 mm. pressure?

Atomic weights: H=1, O=16, S=32, Zn=65.37, Fe=55.9; Na=23.

Vapour pressure of water at 21° C.=18.5 mm.

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