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# THE SCHOOL MAGAZINE.

MAY, 1880.

## THE TENDER PASSION WITH SHAKESPEARE.

THE Passion of love has been depicted by Shakespeare in all its phases, from the strange but soon cured fancy of Titania for Bottom, the weaver, to the soul-engrossing passion of Juliet. Under the skilful touch of his magic wand all are brought under its dominion, alike the school-boy with his "smiling morning face," and the grandsire in "the sear, the yellow leaf," who may be "sans teeth, sans eyes, sans taste, sans everything" but love. We see it now in the patient, filial affection of Cordelia, now it is the soul of virtue in the lovely Isabella, or the charming innocence of Miranda. We hate it in Gonneril and Regan, laugh at it in Titania "enamoured of an ass," admire it as seen in Portia, and bewail its sad effects in fond Desdemona, and poor gentle Ophelia. Love with Shakespeare is not merely a vague, undefined youthful, "sighing like furnace," or the copious supply to that "sea nourished by love's tears," there is something of more momentous import in that deep, passionate and frank union of heart with heart. It is passion in its very essence, such as can be portrayed only by the genius that

has shown us, as in a mirror, every variety of passion from the almost playful moralizing of Jaques, that prince of philosophic idlers, through the sad morality of the gifted, deep-thinking Hamlet, and the fierce, caustic rage of that "good hater" Timon of Athens, to the wild heart-rending despair of Lear, making reason totter on her throne.

We see the influence of love over the strongest minds in the pages of our author; the haughty Coriolanus, "who would not flatter Neptune for his trident" when driven from Rome by "the common cry of curs," foregoes his mighty revenge in the very moment of victory, at the intercession of his mother and wife, although he knew it would be "mortal to him." His proud heart was touched by nature's passion, and it was in vain that he uttered

"Not of a woman's tenderness to be,  
Requires not child nor woman's face to see."

Antony, that noble lover, giving kingdoms to his "serpent of Egypt," the coquettish but fascinating Cleopatra, thought the world well lost for love. Shakespeare's description of love,

however, reached its climax in Romeo and Juliet. In the short week occupied by the events of that play we have condensed the ardour and buoyancy of first love, the perfect happiness of its full realization and the blank despair caused by the loss of the loved one. In the mournful, dreamy Romeo—fortunate as a lover, but how unlucky as a man—a man of one idea, always thinking right but doing wrong, drawn by an irresistible impulse to the side of his equally loving, impulsive and hopeful Juliet, we have a picture of passionate young love that even Shakespeare could not surpass. Genius can go no further in the delineation of youthful, ardent passion, and the story of "Juliet and her Romeo" remains the world's love story. Where else shall we look for such a story of love? Where else find that natural and warm mingling of soul with soul? Petrarch has charmed the world with his fervid descriptions of his Laura, but his love is mere, cold adoration of, we might almost say, an imaginary being, whose charms he delights to paint in elegant measures of polished, ornate verse. Eloise and Abelard present us a picture of passionate love, but blotted by coarseness. Shakespeare's play, however, gives us all the poetry and passion without the platonic iciness, or the vulgar coarseness.

In spite of all the misfortunes that fall to the lot of our two lovers, there is a certain satisfaction in reading their story. Lysander's line :

"The course of true love never did run smooth,"

is not such a terrible thing after all. Vainly might an adverse fate shower down its wrath on the heads of such devoted lovers. Happy in the complete enjoyment of mutual affection, what care they for the woes of life.

"Thrice is he armed that hath his quarrel just,"

and thrice were our lovers armed against the shafts of adversity in the consciousness of their love. To such

lovers, separation alone is evil, nay it is death—alarming in its suddenness, and yet friendly and desirable, since it removes the only barriers that separate the lover from his heart's idol.

Such is true love as interpreted by the poet and such its effects when reciprocal, but what would this love, unrequited, be?—this side of it with all its direful results has not escaped our poet. What heart has not throbbled in sympathy, what eye is not dimmed in sorrow over the shattered intellect of poor Ophelia? Her sad lot it was, to love where love was not returned. And poor County Paris! Vainly might it be said of him :

"Verona's summer hath not such another flower."

His sighs, his grief, yea, his life, were matters of indifference to Juliet, absorbed as she was, in love for her Romeo. Like the lovers, Shakespeare neglects him—for a rejected lover is anti-Shakespearian—and it is only by his dying request to be laid on her tomb that we discover how fondly he loved her. More manly and unchanged, perhaps, than Romeo, he loved her probably not less vehemently, but how short had been his happiness! The long-wooded Juliet was now to be his. Like Romeo, he rejoiced in the buoyant spirits of youth, and, no doubt, looked forward to his bridal morn with all the rapturous intoxication of hope, never, alas, to be realized, for a seemingly cruel though really merciful death snatched her from him, and left him nought but blank despair! In his heart he had thought Juliet loved him and that thought had made him happy, but only for a moment, death claimed her, and in his great grief he seeks her tomb at midnight to mourn all alone, when a sudden and, no doubt, a welcome death meets him. Well for him, that there was no waking from that tomb. He never knew his loss and hence it was none to him. It would be idle to conjecture what he

would have done on discovering the deception. Would he have wreaked vengeance on the lovers?—he was young and valiant—but no, he is too noble, and loved Juliet too much for that. Or would he have drowned his love in “war’s wild alarms”? He certainly would not have tamely submitted to his fate, and devoured his bitter grief alone: that would not be poetical nor Shakspearian. Scott, indeed, who has given us the proud, gloomy, Roderick Dhu, and who resembles Shakspeare in depicting character and in the possession of a shrewd, keen common sense, always guiding him right, however surrounded by the romantic or pathetic, says, in one of his novels that most men can look back to some period of their youth in which a sincere and early affection was repulsed or betrayed or rendered abortive under opposing circumstances, little episodes which leave a tinge of romance in every bosom, and allow us never to listen with indifference to a tale of true love. I trow, such could not have been the case with Paris or Romeo; that would not have been the Shakspearian ideal of a lover; with him, especially in those characters held up for approbation, love is deep, sudden and irresistible, as it is natural, noble, and outspoken—a pure all engrossing flame kindled at the shrine of the unsullied soul, none else he deems worthy the name, and well he knows how to distinguish the genuine from the counterfeit article. In Romeo we have probably an example of both; his wire drawn conceits and extravagant declamations are the exponents of his fancied love for Rosaline, but when the true, deep passion seizes him there are no more exaggerated similies; even the news of her death wrings from him merely, “then, stars, I defy you.” His resolution is sudden and determined, and he speaks in a business-like manner as becomes a matter of so vital interest. Here, then, we have, a

genuine Shakspearian love story, without equal in all the domains of fiction. It may not be amiss to enumerate here some of the characteristics of his lovers, both male and female. All are straightforward, honest and honorable; his young men are gentlemen, all, whose characters might be studied with profit by men of the present day. Gay or sad, they are high spirited and manly young fellows, but few of them given to excessive rollicking or drinking, all are vigorous, healthy, brave, generous, natural and affectionate; men who do not merely write “sonnets to their mistress’ eye-brows,” but who are able and ready to climb walls, wrestle, fight tyrants, breast the waves, or lead a column, whose hearts nothing can lacerate, unless a woman be concerned, for Shakspeare’s pages show the truth of Milton’s grim pun:

“The tenor of man’s woes is still from woman to begin.”

and well is it for the devoted youth if some Friar Lawrence can be found with herbs of sufficient potency to heal the wounds made by a Juliet. Though Shakspeare derives man’s chief and most frequent woes from the daughters of Eve, he is by no means their enemy, on the contrary, no poet treats them with more gentleness and scrupulous care, indeed he is truly a woman’s poet. No other writer has drawn her in such various characters, all true in their kind, and none has placed her on so lofty a pedestal; the foremost and indeed only great English dramatist, as a delineator of female character he stands alone in the world. We might search in vain through the dominion of all literature, ancient and modern, for the counterpart of the beautiful creations of his pen. The ancients, after all is said, were, compared to him, mere barbarians. In all Greek literature we find no real domestic life; the presence of woman but rarely graces the scenes, except in such disagreeable

forms as Medea and Clytemnestra. Their one national event was the defeat of the Persian horders, and their literature ever after consisted in ringing, *ad nauseam*, the changes on that event. The Romans, preeminently a military people, had little or no literature that was not an imitation of the subject Greeks. Women were not in sufficient esteem among them to be deemed worthy a place in literature. Where will we find in Roman writers their own women described as Shakespeare has described them in his noble Portia and Volumnia?

His lofty appreciation of female character is, no doubt, the true one, and much might be learned from him in this respect by modern writers of fiction. As his works are comprehensive they must contain some reference to inferior women, but they are not paraded before our eyes, nor subjected to cruel taunts; his very lowest, however, are not thoroughly vicious; we can detect in them a remnant, however small, of that affectionate sympathy, that retiring modesty, and that longing for esteem and honor which adorn woman in her glory. With what a tender care he makes the slandered woman triumphant! How he delights to paint the wife, the mother, the daughter, sister or friend as constant, faithful, pure minded, gentle and loving. Her good and lovely qualities he displays in their brightest colors. Of these love stands pre-eminent as her own peculiar possession, her legacy from mother Eve, her life; for it she braves father and friends, endures calumny and exile, and sacrifices everything but honor, that pearl of priceless value. Even Lady Macbeth, misled by vaulting, unnatural ambition and love for an unworthy husband, is checked in the very act of murder, not by fear like her craven husband, but by love, awakened by a fanciful re-

semblance, which resumes its place in her heart and forbids the fatal blow; the one link that bound the unsexed woman to her kind was love, the last to leave the heart of woman.

Having created his admirable ladies, he, like a true gallant, does not neglect to provide them with the husbands of their choice. Even Titania is gratified in this respect and for a time thinks herself very happy with her long-eared lover of green peas, but is soon only too glad to be relieved of the contented Bottom who is sent back to his weaving. What a warning to ladies this is to beware of gentlemen of long-eared proclivities. Many a Titania, charmed by some magic-working Puck, it may be in the form of wealth, fame, distinction, a handsome exterior, or even *ears*, has been blinded to the other side—vice, disease, dissipation, or passion, connecting herself thus with an unworthy object. These delusions on earth are like that of Titania, soon dissolved, but, then, where is the friendly wand to remove the obnoxious *heavy head*? Puck, indeed will be found to be a very sad substitute for Cupid, blind as the latter is.

And now one word for the lucky Bottom. What an extraordinary piece of luck! Beloved by a goddess! and yet he quietly takes all her caresses as his due and sees nothing unusual in it. Is it typical after all? Do we all assume the ass's head and imbibe unlimited quantities of flattery, in success, and like Bottom, good scupid men, take it all as our due? It is to be feared that Master Puck sometimes plays his pranks on another aerial lady—to wit, Dame Fortune, who, passing over worthy objects, forthwith showers her favors on some lucky Bottom, who straightway loses his head and believes himself a god until the fickle dame has the delusion removed and leaves him plain Bottom the weaver.

LONDON UNIVERSITY MATRICULATION EXAMINATION, 1880.  
ENGLISH.

2. "Distinguish between the Classical and Teutonic elements in English. Point out the several ways in which words of Latin origin have been introduced into the language."

The Classical and Teutonic elements in English are distinguished in two ways, (1) with regard to the form of the words, (2) with regard to their meaning.

I. *As to form* we notice that the following are from the A. S. :

(a.) The articles, adjective pronouns, and nearly all our conjunctions and prepositions.

(b.) All adjectives with irregular comparison, and our defective and auxiliary verbs.

(c.) Words which in any of their forms undergo vowel changes.

(d.) Words with distinctive A. S. endings, as : hood, ness, ling, ful, ish, &c., &c.

(e.) Words that begin with 'wh,' 'kn,' 'sh,' 'ea,' 'ye,' 'gl,' 'th,' with a few exceptions; also those having 'ough' or 'ng' in the root.

(f.) Most compound or derivative words, the parts of which are in use.

(g.) Most words of one syllable.

On the other hand we have from the Classics :

(a.) Nouns in 'sion,' 'tion,' 'ure,' 'ity,' 'ice,' 'nce,' 'ncy,' 'tude,' 'our,' 'ation,' 'osity,' 'tor,' 'sor,' 'trix.'

b. Adjectives in 'ant,' 'ent,' 'ar,' 'ary,' 'tive,' 'sive,' 'tory,' 'sory,' 'ic,' 'ical,' 'ose,' 'aeon,' 'ine.'

(c.) Most verbs in 'ize,' and 'fy.'

(d.) Words having j, æ, œ, ph, rh, ch hard and vowel y in any syllable but the last.

II. Distinguished *according to mean-*

*ing* we find that we have from A. S.

(a.) Words that are expressive of natural feeling and names of our earliest and dearest connections.

(b.) Names of most objects of sense and those which recall individual and therefore vivid conceptions.

(c.) All words used in childhood and early youth.

(d.) Words used in business, in the shop, in the market, in the street and on the farm.

(e.) National proverbs and the most forceable words of invective, satire, humour, &c.

While from the Classics we have :

(a.) All our general terms.

(b.) Abstract nouns.

(c.) Words used in controversy and exposition.

(d.) Words relating to luxury, law, religion, fashion, chivalry, war and the chase.

The extensive use of A. S. words renders a writer's style vivid, impressive and picturesque, while the use of classical words gives brevity to style; and where the ideas are abstract classical terms have the advantage of clearness. The influence on style depends on the fact, that we particularize and define things in A. S., while we generalize and define abstractions in words of classic origin.

[For the last part of this question see February No. of THE SCHOOL MAGAZINE, Eng. Grammar, ques. 1.]

3. "Define the terms vowel, diphthong, consonant. What letters are called mutes, and how are they subdivided? Tell the substance of Grim's law."

A vowel is a letter which can be fully sounded by itself.

A consonant is a letter which cannot be fully sounded without having a vowel either before or after it.

There are sixteen mutes in English; they are classified as follows :

	Sharp.	Flat.
Lene	p	b
	t	d
	k	g
	s	z
Aspirate	f	v
	th	dh
	sh	zh
	tsh (ch)	dsh (j)

Words in Greek and Latin with P,B,F., (labials), T,D,Th., (dentals), K,C,Ch., (palatals), when they occur in Maeso-Gothic change these letters into F,P,B., (labials), Th.T,D., (dentals), H,C,K,G., (palatals), and when they occur in Old H. German they are changed into V,F,P., (labials), D,Z,T., (dentals), H,C,Ch,K., (palatals).

4. "Describe the several ways of indicating gender in English nouns, including the explanation of the words *woman, lady, vixen, seamstress, mistress, bridegroom, widower, drake.*"

Distinctions of gender based on the form of words are in English very incomplete. Neuter nouns have no peculiar form. Masculine and feminine nouns are thus distinguished :

I. By the use of a compound, part of which indicates the gender, as : 'he-goat,' 'schoolmistress.' 'Woman' is a compound=wif-man, i. e., the man or person that weaves. In pronunciation the 'i' sound is modified to 'o' by the influence of the 'a' sound in man, but retains its original sound in the plural 'women.' 'Bridegroom' means bride'sman. It is a compound of the A. S. words bryd=bride and guma=a man.

II. By the use of suffix forms, as : 'authoress,' 'heroine.' 'Widower' is

apparently formed by adding *er* to the feminine, but this is not exactly the case. In A. S. the masculine was *widurwa* and the feminine *widurwe*. In Old English the endings *a* and *e* were dropped and *widow* was of common gender, finally, however *er* being an A. S. masculine termination was added to distinguish the masculine.

'Seamstress' has double feminine ending composed of the A. S. feminine 'istre' or 'estre,' and the English ending 'ess,' 'seam-str-ess.' 'Mistress' is for 'masteress' the 'er' being contracted and the 'a' modified to 'i.'

'Vixen=A. S. 'fixen' from 'fix' a fox and the feminine ending 'en' which occurs under various forms in many languages, as : 'regina,' 'czarina.'

III. By the use of words entirely or apparently distinct, as : 'boy,' 'girl'; 'husband,' 'wife'.

'Lady' is partly from the same origin as its corresponding masculine 'lord', the former is from A. S. *hlaf*, a loaf and *digan*, serve, 'hlafdige'; 'lord' is from *hlaf* and 'ord', origin 'hlaford'. 'Drake' is a corruption of the Scandinavian, *ant rakko*, 'ant' meaning swimmer or duck and 'rakko' ruler, so that drake means the lord of the ducks. It has no etymological connection with its feminine 'duck' which is from *dive*.

5. "What arguments might be used for and against the recognition of the article as a separate part of speech? Tell what you know of the history of *an* and *the*."

The article should not be considered as a separate part of speech, because (1) both *an* and *the* were originally adjectives; (2) they both perform the functions of an adjective according to its definition as a word used with an noun or pronoun to denote some distinguishing attribute of quality, quantity, or relation, belonging to that for which the noun or pronoun stands; (3) the term *article* signifies a *little joint*, a meaning which is vague and meaningless.

It is maintained by some that the article should be considered as a distinct part of speech, because it has been handed down to us by the old grammarians who gave us all our other terms and classifications; and because in its use and meaning they think it does not exactly correspond to other adjectives.

*An* is another form of *one* from A. S. *ân* (Scotch *ane*); it is akin to Fr. *un*, Lat. *unus*, Ger. *ein*, &c. In A. S. it was almost entirely used as a numeral, but after the Norman Conquest its use was changed to the regular modern usage.

*The* is a shortened form of the A. S. demonstrative *se*, *seo*, *thaet*. In Semi-Saxon the *se* and *seo* gradually dropped away, leaving in O. E. only the neuter *thaet*, which was declined. This became modified to *the*, which was not declined; thus, there were for some time two articles, *thaet* declined, and *the* not declined. Finally *thaet* gave way to *the*, so that we find in Middle English *the* of all genders and numbers used in the same way as we now use it.

6. "Trace as fully as you can, the history of the inflexions of *thou*, and of *he*, *she*, *it*, in singular and plural."

The A. S. personal pronoun of the second person was Nom. *thu*, Gen. *thin*, Dat. *the*, Acc. *the*. From the Nom. we have *thou*. From the Gen. we have *thine*, and its more corrupted form *thy*. The Gen. *thin* was used and inflected as a possessive pronoun, corresponding to Lat. *tuus*; *thin* was also used as a substantive, but not after the period of pure A. S. *Thin* was contracted to *thy*, which in O. E. supplanted *thine*, except before long vowels. From the Dat. *the* we have *thee*, while the Acc. is entirely lost. *He* is from the Nom. masc. of the A. S. personal pronoun *he*, *heo*, *hit*, the neuter of which has been contracted to our *it*. The Gen. was *his*, *hyre*, *his*, which gives us *his* the possessive of *he*, and the now obsolete *his*, possessive of *it*,

which has been supplied by the comparatively recent *its*. The Dat. was *him*, *hyre*, *him*, from which we get the objective case *him*. The objective *it* is from the A. S. neuter Acc. *hit*. The A. S. form corresponding to *she* was *heo*, fem. of *he*, but supplanted in Middle English by *seo* (*she*), the fem. of the demonstrative *se*. The possessive *her* and object *her* are respectively from the Gen. *hyre* and Dat. *hyre*, of *heo*, the fem. personal pronoun. The plural case forms *they*, *their*, *them*, are also from the A. S. demonstrative, the original forms were Nom. *tha*, Gen. *thara*, Dat. *tham*.

7. Account for the separate forms *two* and *twain*, and for the words *ten*, *eleven*, *twelve*, *hundred*, *thousand*, *first*, *second*, *dozen*, *score*, *fortnight*.

*Two* is from the Nom. of the A. S. *twa* or *twegen*, while *twain* is from the Acc.

*Ten* is from A. S. *tyn*; *eleven* is from the root *ein* one and *leafan* to leave=one left (over ten); or is formed from *ein* one and *tyn* ten according to well known letter changes.

*Twelve* is formed in the same way as *eleven* *i. e.* either=two left (over ten) or is simply a corrupted form of *twatyn* two-ten.

*Hundred* is from A. S. *hund* one hundred and *rad* a reckoning or number.

*Thousand* is from A. S. *thus*=*tig* (*us*) ten and *hund* one hundred.

*First* is a corrupted form of *for-est* superlative of *fore*.

*Second* comes from the Latin *secundus*.

*Dozen* comes from the Latin *duodecim*=twelve through the Fr. *douzaine*.

*Score* comes to us from the A. S. *scor* to notch, from the old custom of counting by notching a stick, every twentieth notch being larger than the others was called the score *par excellence*.

*Fortnight* is a contraction for *four-teen*night(s).



8. "What is meant by the terms "strong" and "weak" applied to the conjugation of verbs? Explain the difference between the two forms of conjugation by telling what you know about their history."

For answer, see in the January and February numbers of the *Magazine*, the article on "The Verb."

9. "Discuss the inflections of the verbs *may*, *shall*, *can*, *have*, *will*, *do*."

*May* was an old past tense of *magan*, to be able, which has passed into a present sense. The past *might* is of weak conjugation, the *ght* arising from the union of the guttural *g* with the ending *ed*. The personal ending *est* or *st* in the second person singular, present and past are the ending of old personal pronouns. The 3rd sing. personal ending in *may* and also in *can*, *shall* and *will* (except when = resolve, determine) is dropped.

*Shall* was a preterite of *sculan* to owe, and when it passed into a present meaning another preterite *should*, of weak conjugation, was employed to supply its place. The personal ending *t* in 2nd sing. *shalt* is an older form of *st* and was used in the preterite only.

*Can* was the preterite of *cunnan* to know, when it changed in meaning to a present the past tense could was formed, in which an *l* was inserted from a supposed analogy with *will*, *would* and *shall*, *should*. The A. S. form of past tense was *cuth* seen in *uncouth* from the perfect participle.

*Have*, the ending of the present participle *ing* was originally *ande* or *ende* which was contracted into *en* and finally changed to *ing*.

The past tense and past participle had are contracted from *haved*. *Hast* is for *hapest*, and *has* for *haves*; *hath* is for *haveth* (*eth* being an old personal ending.)

*Will* has *wilt* in the second person sing. formed after the analogy of *shall*, although it is present, and *t* was used only with preterites. In O. E. *shal* and *wil* are found for *shalt* and *wilt*.

*Would* is formed by weak conjugation from a collateral form *wol* A. S. = *wolde*.

*Do* is remarkable as being the only remaining verb that forms its preterite by reduplication *dodo*=*dode*=*dide*=*did* as *fefeci*=*feci*. The *ing* of *doing* is explained under *have*.

*Done* is a modified form of *doen*, *en*, or *n* being the ending of the past participle.

*Dost* is used when the verb is an auxiliary.

*Doest* is transitive.

*Doth* is for *doeth*, as *hath* for *haveth*.

10. "Account for the use of *to* in the infinitive present, and for its occasional omission in an infinitive after a verb, as, 'I daresay' "

In A. S. the infinitive ended in *an* and was declined as a noun; the Dative case, which was preceded by the preposition *to*, ended in *-anne* or *-enne* and was used to denote purpose. This Dative passed into modern English with loss of inflexion, but retained the preposition *to*. From denoting the purpose of an action it came to mark the ground of an action more generally. This infinitive of purpose or gerundial infinitive of purpose as it is called thus supplanted the simple infinitive, except after a few verbs, such as *may*, *can*, *bid*, *dare*, &c., which are generally followed by the old simple infinitive.

11. "Make two classifications of adverbs; one logical, according to their meaning; the other etymological according to their form and origin."

I. Logically.

1. TIME. {  
*a. A point of time, as : once, now, soon, then, instantly, &c.*  
*b. Duration of time, as : always, ever, never, age.*  
*c. Repetition of time, as : often, weekly, twice, seldom.*  
*d. Relative to some other event, as : meanwhile, before, afterwards.*

2. PLACE. {  
*a. Rest in a place, as : here, there, yonder, above, &c.*  
*b. Direction to a place, as : hither, thither, inwards, down, &c.*  
*c. Direction from a place, as : hence, thence, away, &c.*  
*d. Order, as : firstly, lastly.*

3. DEGREE. {  
*a. Degree without comparison, as : low.*  
*b. Abundance, as : much, too, very, greatly, &c.*  
*c. Equality or sufficiency, as : enough, equally, just, &c.*  
*d. Deficiency, as : little, less, hardly, almost, &c.*

4. MANNER. {  
*a. Manner from quality, as : well, ill, justly, &c.*  
*b. Manner from mode, as : thus, nohow, anyway, &c.*  
*c. Manner from negation or assent, as : no, yes, nowise, forsooth, &c.*  
*d. Manner from doubt or uncertainty, as : perhaps, possibly, &c.*  
*e. Manner from cause and effect, as : therefore, wherefore.*

II. Etymologically.

1. A. S. monosyllabic words. {  
*a. Time-- Now, oft age.*  
*b. Place--In, out, up, neath, &c.*  
*c. Quality--Ill, well.*

2. Derivatives from other parts of speech. {  
*a. From nouns (1) by case forms, as : needs, (2) by prefixes, as : ashore, behind, (3) by affixes, as : backwards, godly.*  
*b. From pronouns, as : here, there, thence, whence, &c.*  
*c. From numerals :— either, cardinal, once ; or, ordinal, thirdly.*  
*d. From adjective and participles, as :— richly, lovingly, likewise, &c.*  
*e. From prepositions, as : besides, betwixt, &c.*

3. Many compound words and phrases, as : nevertheless, of course, &c.  
 4. Many apparently other parts of speech from which they can be distinguished only by the sense.

12. Analyze the following sentence :

“This day, to-morrow, yesterday, alike, I am, I shall be, have been, in my mind, Towards thee, towards thy silence as thy speech.”

Sentence A—I am, alike this day, in my mind, towards thee. Prin. Gram. Subj. *I*; Gram. Pred. *am towards thee* Exten. of Pred. *to-day, in my mind. Alike.*

Sentence B—I shall be, to-morrow, in my mind, towards thee. Prin. coordinate with A Gram. Subj. *I* Gram. Pred. *shall be towards thee.* Exten. of Pred. *to-morrow, in my mind.*

Sentence C--I have been, yesterday, in my mind toward thee. Prin. coor-

dinate with A or B Gram. Subj. I Gram. Pred. *have been towards thee* Exten. of Pred. *yesterday, in my mind*. Similarly the other six sentences will be analyzed by substituting "towards thy silence" and ("towards) thy speech" respectively in the three sentences, A. B. and C.

13. "Illustrate, by example, the points most worthy of attention in the syntax of pronouns."

(1.) Pronouns agree with the nouns for which they stand in gender, number and person, and with the verbs to which they are nominative in number and person. There are some apparent exceptions to this rule.

(a). *It* is used of animals and children when the sex is unknown, as : 'The friend of the child is not the person who gives *it* what *it* cries for.'

(b). 'Many a' is followed by a plural pronoun when the remark is true of the whole,

'In Hawick twinkled many a light,  
Behind him soon *they* set in night.'

(c). 'You' is used for either a singular or plural noun, but is always followed by a plural verb :

'John, *where are* you going?'

'You, Conscript Fathers, shrink back in terror.'

(2.) A plural pronoun is sometimes used in reference to two nouns connected by 'or' or 'nor,' which are of different genders, as ; 'If an ox gores a man or a woman, so that *they* die.' This arises from the absence in English of a singular pronoun of the third person of common gender.

(3). *Ye* is the nom. form of the pronoun ; *you* the objective, as : "Ye rise for religion, what religion taught you that?"

(4). The relative pronoun agrees with its antecedent, which must be a substantive, in number and gender, as :

'Bacon at last a mighty man arose  
*Whom* a wise king and nature chose.'

(5). *Who*, *whose* and *whom* are now limited to rational beings, *which* to irrational beings, inanimate objects, and collective nouns, where the idea of personality is not prominent : *that* may represent nouns of any class, as : 'The man *who* fled.' 'The dog *which* barks.' 'The boy and the dog *that* were playing together.' *Whose* is often used for *of which*, especially in poetry, as :

'That undiscovered country from *whose*  
bourne  
No traveller returns.'

(6). The repetition and emphatic use of pronouns contribute greatly to the force of style. They give a degree of personal interest, and of dramatic effect which is often very impressive, as :

"My son, if thy heart be wise, my heart will  
rejoice, even mine."

"These arms of *mine* shall be thy winding  
sheet,

*My* heart, sweet boy, shall be *thy* sepulchre.  
For from *my* heart *thine* image ne'er shall go."

(7.) If two or more pronouns in one sentence differ in gender, number, or person, the reference of each will be clear, but if they agree, care must be taken that there be no confusion. The nominatives should all refer to the same person, and the objectives to the same. The confusion spoken of is seen in the following :

"*They* were summoned occasionally by *their* kings, when compelled by *their* fears to have recourse to *their* aid."

(8). Relatives, themselves connective words, do not admit of conjunctions ; unless there are two or more relative clauses to be connected. Hence the following is wrong :

'The principal and distinguishing excellence of Virgil, *and which* in my opinion he possesses beyond all (other) poets is tenderness.'

14. "Distinguish between Syntax and Prosody. Define a perfect rhyme."  
*Syntax* treats of words arranged in

sentences, their relation and concord.

*Prosody* treats of quantity, accent, and the laws of versification.

Rhyme is perfect when,

1. The vowel sound and the

parts following it are the same.

2. The parts preceding the vowel are different.

3. And the rhyming syllables are accented alike.

## INTERMEDIATE ENGLISH LITERATURE.

(Answered by Students of the Intermediate Forms.)

1. Criticise the art shown in the description found in the first four stanzas of the *Elegy*.

The object of poetry is to give pleasure. In poetic description three things are necessary: first, that the objects chosen should be intrinsically beautiful; second, that they should be associated with pleasing emotions; third, that they harmonize with the scene. The first stanza is by some critics said to be over-crowded with images. The hour chosen is evening, the reference to the evening bell, the homeward-tending man and beast is in harmony with the time and scene, and suggestive of rest from the toil of the day. The first two are also beautiful in themselves, "for though the lowing of a cow in a farm-yard is positively disagreeable, yet in a pastoral landscape such as this the distant sounds of animal life are extremely beautiful."—*Allison*. In the second and third stanzas the reference is more to objects of sense than of sound; and the objects selected for illustration, owl, beetle, sheep in the fold are all chosen with reference to night.

In the fourth stanza we have a human interest introduced, as, indeed, we have in verse three, stanza one, always a powerful auxiliary in poetic description.

The "elm" "yew" are specified

more clearly and the reference rendered more vivid by the use of "these," "that." The term rugged is appropriately used with reference to the rude character of the scene, while the sombre figure of the yew and its shade are in keeping with the place and the depression of the poet's spirits. "Many a mouldering heap" refers to the long, frequent use made of the spot, as well as the neglect of the living for the last resting place of their dead. The last two verses refer to the eternal separation of the occupants from the employments of life, circumscribed by a few feet of earth, no longer free to move from place to place; and the poet strikes the chord of feeling which vibrates through all the poem in the pathetic use of "for ever." The sentence is called periodic.

No. (2). "Oft did the harvest, etc." What are the characteristics of this stanza? Derive how, team, afield, beneath.

Ans.—This stanza treats of the labors of the "rude forefathers," and how they subdued nature in clearing the forest and in preparing the rough soil for cultivation.

It is highly poetic and abounds in beautiful and pleasing expressions. The emphatic position of "oft did" gives the first line a vigor which it cannot have by any other arrangement. The

anaphora in the repetition of the word *how*, and the exclamatory diction of the last two lines have a very pleasing effect. The other figures are the metonymy in the use of the word *sickle*, in which we have the instrument instead of the agent, also in the word *furrow*, in which we have the thing made instead of the instrument by which it was made, the synecdoche in *stroke*, in which one is named for many. *Stubborn* is a personal epithet, applied to a thing. The sequence of tenses is violated in the use of *has broke*, but, is restored in the succeeding lines. *Broke* is used incorrectly here for the sake of the rhyme. It was, however, a common custom with Shakespeare and other Elizabethan authors to drop the ending *en* or *n* of the past participle. *Jocund* is an adjective used for the adverb. The adjective is more definite than the adverb, hence it is more poetic.

(b). *How* is the old ablative case of the pronoun *he*.

*Team* is from the A. S. *team*, an offspring, a progeny.

*Asfield* is from the A. S., *a* meaning "or to, and *feld*, field.

*Beneath* is from *by* and *neath*.

3. In the stanza beginning "Can storied urn," &c. Explain all allusions and figures.

*Storied urn* is an allusion to the custom which the ancient Greeks and Romans had of cremating their dead, and preserving the ashes in an urn, which usually had a picture on it illustrating some important event or act in the life of the person whose ashes were contained therein. The interrogative form adopted in this stanza does not express doubt, but makes a strong denial of what is asked.

*Mansion*=Metaphor. The body is compared to a mansion.

*Fleeting breath*=Metonymy. The breath is the symbol of life

*Honor's voice*=Expression of esteem or outward marks of respect.

*Provoke*=Call to life=literal meaning.

*Death*=Metonymy. He means the dead, therefore we have an abstract term used for a concrete one.

The figure of personification is noticeable in the use of the words *honor* and *flattery*.

No. (4). Quote examples of harmony, metonymy, metaphor personification and pathos.

Ans.—Harmony—

"The curfew tolls the knell of parting day,  
The lowing herd winds slowly o'er the lea."  
"Nor cast one longing, ling'ring look behind."

Metonymy—

"Their *furrow* oft the stubborn glebe has broke."  
"Back to its mansion call the *fleeting breath*."  
"Or flatt'ry soothe the dull cold ear of *death*."  
"Some *heart* once pregnant with celestial fire."  
"*Hands* that the rod of Empire might have sway'd."

Metaphor.—

"Back to its *mansion*, &c."  
"Or *wak'd* to ecstasy the living lyre,"  
"And shut the *gates* of mercy on mankind,"  
"To *quench* the blushes, &c."

Personification.—

"And leaves the world to *Darkness* and to me."  
"Let not *Ambition*, &c."  
"The boast of *Heraldry*, the pomp of *Power*, and all that *Beauty*, all that *Wealth* e'er gave."

Pathos.—

"Each in his narrow cell forever laid,"  
"The paths of glory lead but to the grave."  
"Chill penury repressed their noble rage, And froze the genial current of the soul,"  
"Nor cast one longing, lingering look behind."

5. Explain the following and quote the whole line in each case :

"Noble rage, living lyre, gates of mercy, growing virtues, smiling land."  
"Chill penury repressed their noble rage."  
"*Noble rage* the inspiration of their genius,"  
"Or waked to ecstasy the living lyre."

"Living lyre." One that gives forth sweet music under the hands of a skilful player. Lyre is here used for poetry.

"And shut the gates of mercy on mankind."

"Gates of mercy." All kind and generous feelings.

"Their growing virtues, but their crimes confined."

"Growing virtues." Those virtues that would grow greater if their lot in life was better; a poetic expression for the growth of their virtues.

"So scatter plenty o'er a smiling land."

The land would be happy and contented if good measures for the benefit of the people were brought about by them.

6. Quote Gray's expression for the following sentiments :

(a) "Yet in our aisshen, cold is fyr yreken."

(b) "He lay along

Under an oak whose antique root peeped out

Upon the brook that brawls along the wood."

(c) "The earliest pipe of half awakened birds."

(d) "Or against the rugged bark of some broad elm."

(a) "Even in our ashes live their wonted fires."

(b) "There at the foot of yonder nodding beech

That wreaths its old fantastic root so high,

His listless length at noontide would he stretch,

And pore upon the brook that babbles by."

(c) "The cock's shrill clarion."

(d) "Beneath those rugged elms, that yew tree's shade."

When was the Elegy written? Mention some of the literary characteristics of the period on which it was written. Name Gray's principal works.

He was born in 1716 A.D. The Elegy was written about 1750 A.D. This period was a transitional one; it was noted for its classical accuracy of form, scrupulous neatness and carefulness of expression, it was critical in the extreme, and it was noted also for the prominence given to nature. His poems were: "An ode to Eton College," "Progress of Poetry," "The Bard," "Ode to Spring," "Hymn to Adversity," "The Elegy," "A line from the Bard."

Quote what you consider the best stanza of the elegy, and give your reasons—

"Full many a gem of purest ray serene,  
The dark unfathomed caves of ocean bear,  
Full many a flower is born to blush unseen,  
And waste its freshness on the desert air."

Because it is a summing up in more concise language, the thoughts in the last two stanzas; the images introduced are of rare delicacy and beauty; and it teaches us this that we should not overvalue our own abilities, for there may be many who, if they enjoyed our advantages, would far surpass us in the use made of them; and this stanza is certainly the most popular in the elegy, since it is the most frequently quoted.

## ANSWER TO QUESTIONS ON ADDISON, IN THE APRIL NUMBER OF THE SCHOOL MAGAZINE.

2. ADDISON aimed at clothing his thought in smooth, musical language, suitable for the comprehension of ordinary readers. He desired to extend the reading public so as to include more than literary people, and also to

impart general knowledge in a pleasing manner.

Let us now consider (1) *his style*. We find that he has great command over language. He takes words as he finds them, attempting no innovations

and uses them in their natural order, sometimes, however, overloading the sentence, and even violating the laws of Grammar, so anxious was he to preserve the melody. His sentences are generally loose and unartificial, and he usually succeeds in maintaining the three requisites of style, namely: sympathy, clearness and strength.

(2). Addison's humor.—This feature of Addison's character has always been highly praised. It was delicate and delightful, and he possessed the power of throwing the charm of novelty round familiar scenes, still infusing kindly feeling in his ridicule of them.

(3). His satire.—This will be treated of in Ques. 8.

(4). His sentiments.—Addison does not display much energy or brilliancy; his thoughts are neither deep nor striking, nevertheless they are always just.

(5). His principal aim was to take learning from college halls, and infuse it more widely among the people. He presented knowledge in an alluring form, so that whilst exciting curiosity he showed how it might be easily satisfied. Addison also labored to redeem the nation from the gross licentiousness into which it had been precipitated since Dryden wrote, and he succeeded so well that since his time every-day life has been much improved, and conversation purified and enlarged.

MISS J. WOOD.

3. The *Spectator* originated with Richard Steele. It was by him most of its papers were written, and he was the tie which bound Addison to it. Steele himself was no mean writer, but much of his fame was acquired in connection with Addison in the *Tatler*, *Spectator* and *Guardian*, each of which was begun, continued and ended by Steele at his sole discretion. He was born in Ireland, 1671, educated at the Charter House, and his whole career

is one of extravagance, dissipation and debt, alternating or combined with at least occasional fits of strong religious enthusiasm — good resolutions never acted upon. His father was an attorney in Dublin, and died when Steele was five years old. Steele was thus early cast upon the world, and obtained his education only by the bounty of his uncle Gascoigne. Steele's career is checkered—a poet, a private in the Horse Guards, a moralist, a captain in the Fusiliers, a dramatist, an essayist, an M. P., an officer of the Government, a political writer, and finally, a pauper knight, ending his days on the bounty of his creditors. His poetry was mostly written at College, "The Profession," on the death of Queen Mary, was the chief. "When he mounted a war horse, as a private in the Coldstream Guards, with a great sword in his hand, and planted himself behind King William III. against Louis XIV., he lost the succession to an estate in Wexford, from the same humor which he always preferred of preferring the state of his mind to the state of his fortune." The past life he led in the army sometimes touched his conscience, it was then he brought upon himself the ridicule of his brother officers and the town-people by writing "The Christian Hero,"—the idea of a fast-living soldier appearing in print as a religious character seemed to have in it something irresistibly comic, though he certainly never wrote any religious *cant*. His efforts as an essayist are well known. His success in Parliament was not brilliant—he often braved political ruin for his opinions. He was a Whig and wrote many political articles, for one of which he was expelled from the House; for political services in various offices he was knighted in 1714.

Steele knew the world by experience, hence he was able to direct his pen the way to popularity and usefulness. He

venerated religion and morality, though he often acted the rake; he was a kind and affectionate friend; was totally devoid of selfishness—more ready to give than receive—more prompt to ascribe honor to others than claim it for himself; always jovial, generous, thoughtless,—gaining private friends or making political enemies; he often made money fast, *always* spent it faster; he possessed remarkable qualifications for spending money, and poverty and indebtedness was his normal condition. He died at Llangunnor, Wales, in 1729.

Contemporary writers. — ADDISON, associated with him in all his papers: a better writer than Steele, but not so well acquainted with the world, a man of finer feelings. To him is chiefly due the literary character of the serials. He was born in Amesbury, Wiltshire, 1672, died 1719. He and Steele were devoted friends. Addison figured in several positions, but he succeeded best as a writer.

SIR ISAAC NEWTON wrote philosophical works; famous for his scientific investigations. Born 1642, died 1727.

ALEXANDER POPE, born 1688, died 1744, called the Prince of the Artificial School, was a voluminous writer of great power and literary taste. The "Rape of the Lock," a mock-heroic poem, founded on the stealing of a tress of hair by a lover from his lady, and "The Dunciad," in which he satirizes nearly all his contemporary writers, are his best works. He wrote many other minor pieces. He was small and sickly in person—and consequently irritable and fussy.

JONATHAN SWIFT, the man who, even in boyhood days, when attending the village school, at prayer one morning laughed

"To see a rat for want of stairs  
Come down a rope to say its prayers,"

Could not help satirizing everything else that drew his attention. *Gulliver's Travels*, a political satire; *The Tale of*

*a Tub*, a satire on religion, and *The Drapier Letters*, on the state of Ireland, are his chief works. He entered the Church for a time, but soon abandoned it. His satires are marked by intense venom.

J. T. GODFREY.

4. The history of national literature is the history of a nation. The literature of any people is their truest exponent of national thought and life. The poet mirrors the manners of the age in which he lives, and crystallizes the thoughts of the men with whom he associates. In the beginning of the eighteenth century we have in England a state of society entirely different from anything before or since. It was an intensely practical age—an age that sought to understand and enjoy life *as it is*. The civil war and its consequences was almost forgotten, and the prosperity of the nation was again returning. It was an age of money getting and of political intrigue. Poets and philosophers were engrossed in the all-absorbing present. Politics had opened a new and profitable field of labor to all classes of writers. Till now literature and politics had been distinct callings. But, from the time literary men assayed politics literature sank to the level of its subject. This became emphatically an age of prose, or at least an age in which the only distinction between poetry and prose was in rhyme and numbers. Theology, Philosophy and Science, every subject that may be treated in prose, was twisted out in verse. One of Pope's most potential reasons for versifying his sentiments in the Essay on Man was because he could "express them more shortly that way than in prose itself." Poetry became a rhymed rhetoric, setting forth the trite and common-place, and avoiding in originality and sublimity of conception all the requirements of true poetry. The form was as nearly perfect as art can



ever hope to attain, but it served only to intensify the poverty and meanness of the thought. "Milton, in whom our great poetic age expired, was the last of the immortals." All the writers of verse who follow till the time of Cowper, with perhaps the exception of Gray alone, are writers of prose as well. Many of them, Johnson, Addison, Swift Goldsmith, &c., are better known as prose writers than as poets. This period has been wrongly called the "Augustan Age of English Literature." Our greatest glory is our poetry, and poetry this age did not produce. Exquisite though the works of such poets as Pope and Prior may be, they never attain the lyrical grandeur of the Elizabethan writers, nor to the sweet and graceful naturalness of the poets of the present century. They fail not because they lack genius, or had not "access to the haunted ground of inspiration," but because they chose rather to please than to reform the age in which they lived.

J. C. McLAUGHLIN.

If we look back on the time in which ADDISON lived we will see two phases of literary life—the one rich and brilliant—the other poor and wretched.

If an author wrote something that took well his fame immediately spread abroad, and he was very likely rewarded with a pension or some office of State, as was the case with Montague, Mainwaring, Tickell, Addison and others. It seems this practice was brought into fashion by the Earl of Dorset and the Tory leaders, Harley and Bolingbroke in particular, vied with their Whig opponents in their zeal for the encouragement of letters.

But although this seems a bright picture for writers, and would lead us to envy their happy lot, there was another side to the picture as dark as this was bright. The poor writers,

who failed to attract the attention of some great man, were utterly neglected, there was nothing for them but to starve and shiver in some mean garret, while their successful fellow-laborers basked in the smile of the great, drank their wine and received the pay. In our time, although our successful writers are not made Secretaries of State, Commissioners, &c., they are not allowed to starve.

Any man who can use a pen, is industrious, and possessed of a reasonable supply of common sense, is sure of earning a comfortable livelihood and of holding a respectable position in society. We have very few political prizes bestowed on authors—but there is a wide-spread comfort extended to all.

E. L. McKELLAR.

10. ADDISON'S satire was directed mainly against the prevailing follies, infirmities and perversities of his time.

It was almost always of a mild type. On some occasions he apparently acquiesced in conduct which he desired to ridicule, in order to increase its absurdity.

As his style was correct and very pleasing, his satire exerted a powerful influence in reforming the manners of the people, and also in purifying English Literature.

"No man has ever used so effectively that gentle raillery which can expose and reprove a vice or a folly, and show it in its most ludicrous form, without wounding or irritating those whom it seeks to instruct."

The satire of DEAN SWIFT is noted for its violence. He attacked individuals indiscriminately, and made but little attempt to disguise them from the public.

He was principally a political satirist, and this implies the presence of strong feeling and frequently of bitter acrimony. His allusions were often coarse and even vulgar, and were it not for

this fact the effect of his satire would have been, in all probability, much more beneficial.

POPE as a satirist evinced better taste than Swift, but resembled him somewhat in his humorous wit, the violence of his withering invective and his fierce denunciations.

In his satire he exposed the vices of the great, and lashed those of his contemporaries whom he looked upon as absurd pretenders to literary culture.

ADDISON does not rank high as a poet, owing to his lack of fire and fancy, but his political productions give evidence of sound common sense.

As in his prose writings, he apparently endeavors to express his thoughts in simple language, which is but rarely ambiguous.

He makes more classical than local references in his descriptions, and on this account is regarded by some as a historic or academical poet.

SWIFT'S POETRY is written in a style peculiarly his own. He uses a great many common-place expressions, which nevertheless serves to convey the meaning he intends clearly and forcibly. He displays considerable wit, and occasionally the fire of a poet, but frequently both matter and language are tinged with vulgarity, and thus made repulsive to the reader. He is generally vigorous, and his versification is easy and flowing.

POPE ranks with the most celebrated of the British poets. He possesses the true poetic genius to a remarkable extent. His beauty of imagery and external force, exquisite melody of versification and keen insight into human nature are not to be surpassed.

Swift's poetry gives evidence of wit more than of true poetry, Addison's of learning and scholarly attainments, whilst that of Pope consists of the soul stirring effusions of one who was in the truest sense a poet.

W. H. GARNHAM.

9. (a.) While perusing the poems of Addison we are forcibly struck by the truth of Johnson's remark, "he thinks justly but he thinks faintly." Everywhere he lacks both the fancy and the fire of the true poet. This is not true of Johnson's verse. Whatever may be its failings it never wants energy and imagination. Though neither merits the name of poet in the highest sense of the word, yet of the qualities that constitute poetry Johnson has perhaps the greatest share. There may be worse passages in "London" than any Addison has left us, but if we turn to "The Vanity of Human Wishes," the pictures of Wolsey and Charles of Sweden far surpass the finest paragraphs of the "Letter to Halifax." The man who could say that Spenser "Can charm an understanding age no more," and of the beauties of that poet,

"—when we look too near, the shades decay  
And all the pleasing landscape fades away,"  
and who omitted Shakespeare from his "Account of the Greatest English Poets;" the man who experienced no sensations amongst the Alps, except that of cold, can not be ranked with a poet whose worst poem found favor with Gray. Cato abounds in generous and patriotic sentiments, and contains passages of great dignity and sonorous diction; but if the poet pleases our fancy he fails to touch our hearts. Sir Walter Scott has termed "The Vanity of Human Wishes" "a satire, the deep and pathetic morality of which has often extracted tears from those whose eyes wander dry over pages professedly sentimental."

(b.) The prose of Johnson and Addison is as different as the characters of the two men. They stand as the representative writers of two styles entirely different. Addison is the model of the middle style. He writes as an educated English gentleman would speak, always exact and always easy. His prose is peculiarly adapted to that

class of subjects on which he commonly wrote. We have seen that his sentiments are just and unimpassioned. So, too, is his language. He has none of the violent inversions and labored antitheses of Johnson. In the same easy, graceful, flowing style he writes on all subjects. Not so with Johnson. "All his books are written in a learned language, in a language which nobody hears from his mother or his nurse, in a language in which nobody ever quarrels, or drives bargains, or makes love, in a language in which nobody ever thinks." The mannerism of Johnson is unpardonable because it is unnatural. The characteristics of his style is an excessive use of words of classic origin and of antithetical forms of expression, and an all pervading pompousness of phrase that renders his language sometimes impressive and sometimes ridiculous. Addison always chose the words that first came and arranged them in their most natural order. Johnson sought strange and unusual words and then strove to build them into periods adapted to their length and dignity.

(c.) The drama is the highest form of the novel; and as dramatists, both Johnson and Addison fail. "Irene" is scarcely more monotonously declamatory, and void of passion, character, and interest than "Lato". There are few passages in either tragedy, not directly relating to the sex and station of the speaker, that would not be as becoming in the mouth of any other character in the play. It is Johnson and Addison who discourse philosophy and morality, not the personages of the drama. If, however, we compare *Rasselas* and the *Spectator*, we find Addison excelling in every particular as a novelist. The Roger De Coverly papers bear a much closer resemblance to the modern novel than "Rasselas". The *Spectator* was not, and from its nature could not be, written on any formal plan, nor with a view to devel-

oping the character or fortunes of any of the characters introduced. Still the entire absence of plot and of coherence of action is not more evident than in reading *Rasselas*. We stand by Sir Roger's death-bed and we know the fate of the widow, but from Culac and the Prince, from Nekayah and Pekuah we part as from 'outsiders' on the same stage-coach. In *Rasselas* we are interested in Johnson's discoveries of the problems of life. Addison centres our interest in Sir Roger and his love for the widow, and in Will Wimble's efforts to serve and oblige the whole shire. The object of a novel is to teach moral and social duty forcibly and agreeably, and in doing this Addison has succeeded far more certainly than Johnson.

(d.) If we were to form an opinion of Johnson's politics from his non-political writings, we should expect to find him too liberal for a partizan and too philosophic for a servile follower. When he writes on politics, aside from party, he is liberal even to laxity. More than once in his writings we find the opinion deliberately expressed that one form of government is just as good as another.

"How small, of all that human hearts endure  
That part which kings or laws can cause or  
cure."

"This opinion, however, did not preserve him from the lowest, fiercest, and most absurd extravagances of party spirit. His passions were violent even to the slaying of all who leaned to Whiggish principles." Addison on the contrary was a zealous Whig. He was always an earnest and consistent party-man. At one time (1717) he became Secretary of State. He was a warm advocate of the Whig policy, but his political writings are more dignified and temperate than Johnson's.

(e.) Both Johnson and Addison were excellent Latin scholars, and both had more than an ordinary acquaintance with Greek. Addison was, perhaps,

the better acquainted with French and Italian. But of that universal knowledge of the world and of men which goes so far to supply the place of a neglected education, Johnson possessed the greater share. Johnson's knowledge was the more extensive and varied. Addison's was the more elegant and exact.

(f.) As a depicor of character, Addison far surpasses Johnson. Roger de Coverly and Will Wimble are amongst our most intimate acquaintances. For the chaplain, we entertain a most profound respect. Although we have not been formally introduced to the widow, we feel that she is worthy of the esteem in which she is held by our friend Sir Roger. Sir Andrew Freeport, Captain Sentry and Will Honeycomb, we meet daily, and each has stamped his own individuality on our memories. We never confound their sentiments nor their actions. Not so with the creations of Johnson. Squire Bluster, and Mrs. Busy, Rasselas and Emlac, Nekayah and Pekuah, though intended to be widely different in character and opinion are identical throughout. He does not even preserve the distinction of sex. His women are "Johnsons in petticoats."

(g.) The *Spectator* did not enjoy, during Addison's life-time, the popularity that was extended to the *Idler* and *Rambler* while Johnson was yet living. The easy, natural style of Addison is much better adapted to short, popular essays than the monotonous and stilted phraseology of Johnson. Yet some eminent writers have pronounced the *Rambler* superior to the *Spectator*. Macaulay says "on the question of precedence between Addison and Johnson, a question which seventy years ago was much disputed, posterity has pronounced a decision from which there is no appeal." The decision is in favor of Addison. The object of the periodicals was the same, and there is not much difference in the

nature and subjects of many of the essays.

(h.) Addison enjoyed to a greater extent than Johnson the patronage of private individuals. While yet at college he made the acquaintance of Dr. Lancaster and others who were there and afterwards useful to him. Henceforward he was regularly patronized by the great men of the Whig party. All the world knows the story of Johnson and Chesterfield, and Chesterfield was Johnson's only private patron. When Addison was but twenty-seven years old he received from the government a pension of three hundred pounds. A like sum was only granted to Johnson in his fifty-third year, and was never afterwards increased, while Addison retired from the secretaryship with fifteen hundred pounds per annum.

J. C. McLAUGHLIN.

10. (1). To satirize primogeniture in English families, Addison uses as his instrument a young man of considerable estate, who had been educated (?) by his mother. His education consisted in riding and hunting, his mother having made the discovery that reading was injurious to his eyes, and that writing was instrumental in promoting a general disorder of his constitution. Addison concludes as follows: "If it were a man's business only to live, there would not be a more accomplished young man in the whole country."

(2). "Will Honeycomb is a narrow-minded bachelor, whose conversation is all in the female world. He considers the knowledge of mankind the learning of a gentleman, and looks with contempt on book learning. He is well versed in theatrical matters, can give a catalogue of the reigning beauties, and has considerable reputation in the world of fashion. He has lived in the city during most of his life, consequently his knowledge of country

life is very limited ; he imagines that the chief diversion in the country is conversing with Will Wimble, Moll White, or other like mysterious characters."

(3). "In order to revenge those who had voted against his party in previous elections, Sir Roger de Coverly, (the Tory squire) while travelling took particular care to avoid stopping at any inn, the landlord of which was a Whig. He took greater care to enquire after the party principles of the innkeeper, than about the inn ; by his bigotry he was often led into poor lodgings, and forced to subsist on scanty diet, the host knowing that those who were his friends would

endure such rather than forsake their principles."

(4). At the commencement of the speculation on witchcraft, Addison is undecided whether to believe in it or not, but before he finishes he completely disgusts his readers with the belief by making use of Moll White—"a wrinkled hag with age grown double." She is believed to rule the destinies of the district in which she lives ; everything she touches seems to be surrounded by misfortune. The fear of this is carried to so great a degree, that were she to offer money to any one, no one would accept of it. Even Sir Roger de Coverly believes there is something supernatural in her.

T. LOGIE.

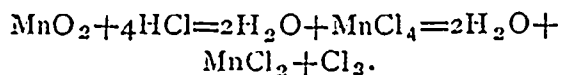
LONDON UNIVERSITY MATRICULATION EXAMINATION—  
JANUARY, 1880.

CHEMISTRY.

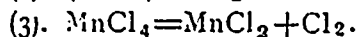
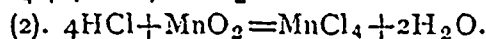
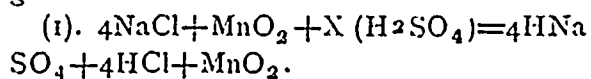
Q.—1. (a). "Describe the preparation of Chlorine, and explain your process. (b). What happens when dry litmus paper, an aqueous solution of litmus, a burning candle, and powder of copper, respectively, are introduced into Chlorine Gas?"

(a). Put some Manganic Dioxide into a generating flask, and add about four times its weight of strong Hydric Chloride ; connect the flask with a washing bottle containing water. Heat the flask gently, and Chlorine Gas will be given off rapidly, which, after passing through the washing bottle to get rid of the vapour of Hydric Chloride, may be collected in a bottle by downward displacement. The Chlorine of the Hydric Chloride unites with the Manganese of the Manganic Dioxide, which then splits up into Manganous Chloride and Chlorine, and the remaining Hydrogen

and Oxygen unite to form water ; the following equation represents the reaction :



Chlorine is also made by acting on a mixture of common Salt (NaCl) and Manganic Dioxide (MnO<sub>2</sub>) by Hydric Sulphate (H<sub>2</sub>SO<sub>4</sub>) ; the H. of the H<sub>2</sub>SO<sub>4</sub> unites with the Cl of the common Salt (NaCl) to form Hydric Chloride (HCl) which then acts on the MnO<sub>2</sub> as in the first process ; the following equation gives the reaction :



(4).  $\text{MnCl}_2 + \text{H}_2\text{SO}_4 = \text{MnSO}_4 + 2\text{HCl}$ , which is able to attack another molecule of MnO<sub>2</sub>.

(b). When *dry* litmus-paper is introduced into *dry* Chlorine Gas no reaction whatever takes place. When, however, an aqueous solution of litmus is introduced into Chlorine the litmus is bleached and the solution loses its color. The reaction that takes place is this: the Chlorine has a strong tendency to combine with Hydrogen, hence it robs the water present of its Hydrogen to form Hydric Chloride, thus liberating the Oxygen of the water, which being nascent and therefore possessed of intense combining power, unites with the vegetable coloring matter to form substances which are colorless. This action, it is obvious, could not take place when both the Chlorine and the litmus are dry.

When a burning candle is introduced into Chlorine the candle continues to burn, but with a very red flame and a dense black smoke: the Hydrogen of the candle unites with the Chlorine to form Hydric Chloride, while the Carbon is given off free in the form of soot.

Powder of Copper when thrown into Chlorine will catch fire, owing to the great energy with which the Chlorine unites with Copper to form Chloride of Copper ( $\text{CuCl}_2$ .)

Q. 2.—“Give a brief description of the allotropic modifications of Sulphur, and of the preparation of each modification.”

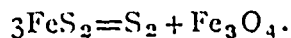
There are two allotropic modifications of Sulphur, differing from each other chemically and physically:

(a). One of these allotropic forms is dimorphous, i. e., it has two forms *physically* different, the first of these occurs free in Nature in yellow crystals of the ortho rhombic system. The second is obtained by melting Sulphur, and allowing it to cool slowly in a water bath when it forms crystals, which belong to the oblique rhombic system.

If this common yellow sulphur is melted and vaporized, and then made to condense rapidly, a fine yellow powder is formed which is known as flowers of Sulphur.

Sulphur also occurs combined with metals, forming sulphides, and may be got from them

by roasting out of contact with air, as for instance from Sulphide of Iron,



This allotropic form of Sulphur is very inelastic, and conducts electricity very badly. It is insoluble in water, but soluble in Carbon Disulphide and in Oil of Turpentine.

(b). The other allotropic form of Sulphur is a semi-transparent plastic substance, made by heating common Sulphur to near its boiling point and suddenly plunging it into cold water. It is insoluble in Carbon Disulphide, and returns to the ordinary form after a few hours, or immediately, by plunging it into boiling water.

Q. 3.—“How would you prove by means of experiment, that water is a compound of Hydrogen and Oxygen?”

(1). By boiling water, and causing the steam to pass over red hot iron filings. The iron will become Oxide of Iron, and a gas will be given off which, on being tested, will be found to be Hydrogen, while the Oxide of Iron may be made to split up into Oxygen and Iron, thus showing that the water consists of Oxygen and Hydrogen.

(2). If we burn Hydrogen in air, water will be formed by the union of the Oxygen of the air with the Hydrogen.

(3). If we pass a mixture of the two gases, Oxygen and Hydrogen, into a eudiometer over Mercury, and pass a current of electricity through them, the two gases will unite, with an explosion, and form water which may be seen to collect as dew on the sides of the tube.

(4). In the last case, instead of using electricity we might pass into the mixed gases a small pellet of spongy platinum and clay, and the water will be formed.

(5). By passing electricity by the two terminal wires of a battery into slightly acidulated water, the electricity will resolve the water into Hydrogen and Oxygen, which may be collected in test tubes, by upward displacement, over the water.

Q. 4.—“If you place a burning candle into

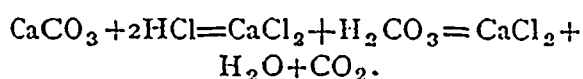
a closed bottle the flame will soon be extinguished. (a). Why does not the candle continue to burn? (b). How is the composition of the air affected by the flame?"

(a). The flame of the candle is caused by the Oxygen of the air uniting with the Hydrogen and Carbon of the candle. This union produces sufficient heat to render some of the particles of Carbon incandescent, thus giving off light. Now, as soon as all the Oxygen of the air in the bottle has united with the elements of the candle the chemical combination ceases, therefore there is no more heat evolved and the candle ceases to burn.

(b). The composition of the air is affected by the flame of a candle as follows: the Oxygen is taken from the air and combines with the Hydrogen of the candle to form water, which is given off as aqueous vapor into the air; some of the Oxygen also unites with the Carbon to form Carbonic Dioxide, which passes into the air.

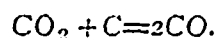
Q. 5.—(a). Explain the action of Hydric Chloride (HCl) on Calcic Carbonate. (b). If you pass Carbonic Acid over a layer of red hot charcoal it becomes converted into a combustible gas. Explain the reaction which takes place between the Carbonic Acid and the hot charcoal."

(a.) The Calcium of the Calcic Carbonate ( $\text{CaCO}_3$ ) is replaced by the Hydrogen of the acid forming Hydric Carbonate ( $\text{H}_2\text{CO}_3$ ) and Calcic Chloride ( $\text{CaCl}_2$ ). The  $\text{H}_2\text{CO}_3$  an unstable compound then splits up into water and Carbonic Dioxide. The following equation shows the reaction:



(b). The Carbonic Acid ( $\text{CO}_2$ ) is reduced,

giving up one atom of O to unite with the red hot charcoal to form Carbonic Oxide, according to the following equation:



And this CO burns with a bright blue flame.

Q. 6.—"Silica has no taste and does not act on blue litmus. Why do we call this substance Silicic Acid?"

Silica unites with bases to form Silicates, and in this respect exhibits the character of an acid. The hydrated solution of Silica has a feeble acid reaction, and might be regarded as the true Silicic Acid. Silica deserves no more the name of acid than Sulphuric Dioxide, Phosphoric Trioxide or Phosphoric Pentoxide, or  $\text{Cl}_2\text{O}$  or  $\text{Cl}_2\text{O}_3$ .

Q. 7. "If you heat common Salt with Hydric Sulphate ( $\text{H}_2\text{SO}_4$ ) Hydric Chloride is given off. How many cubic centimetres of Hydric Chloride at  $0^\circ$  cent, and 760 min. pressure could you liberate from a thousand grammes of Sodid Chloride?"

$\text{NaCl} + \text{H}_2\text{SO}_4 = \text{NaHSO}_4 + \text{HCl}$ ,  
 $\text{NaCl} = 23 + 35.5 = 58.5$  parts of Salt,  
 $\text{HCl} = 1 + 35.5 = 36.5$  parts of Hyd. Chloride,  
 hence we get 36.5 parts of Hydric Chloride from 58.5 parts of Salt  $\therefore$  from a thousand grammes of salt we would get  $1000 \times \frac{10}{585} \times$

$\frac{365}{10} = \frac{73000}{117}$  grams., but 11.2 litres of HCl weigh  $\frac{36.5}{2} = 18.25$  at  $0^\circ$  cent. and 760 min.

pressure  $\therefore$  in  $\frac{73000}{117}$  grammes we have  $\frac{73000}{117}$

$\times \frac{100}{1825} \times \frac{112}{10} = \frac{44,800}{117}$  litres  $\frac{44800000}{117}$  C.C  
 $= 382905 \frac{115}{117}$  C.C.

MATHEMATICS.

Solutions to Problems in the April Number.

26. Let A be the given point in the circumference ; from A draw any two chords AB, AC ; through B draw BD parallel to AC and through C draw CE parallel to AB ; join DE ; through A draw GAH parallel to DE ; GAH shall be the tangent required.

Let BD, CE (produced if necessary) meet in K, then BACK is a parallelogram ; therefore the angles ABK, ACK are equal ; therefore the arcs ABE, ACD are equal, therefore the chords AD, AE are equal. Now suppose F the middle point of DE ; join AF ; then the angles at F are right angles ; therefore AF passes through the centre of the circle. Also, since GAH is parallel to DE, therefore the angles FAG, FAH are right angles ; therefore GAH is a tangent to the circle.

27. Let ABC be the given triangle ; at the point B make the angle CBD equal two-thirds of a rt. angle ; through A draw AD parallel to BC meeting BD in D ; join DC ; then the triangle DBC is equal to ABC. In BC (produced if necessary) take BE such that the square on BE is equal to the rectangle DB, BC ; in BD take BF equal to BE ; join FE, then FEB shall be the required equilateral triangle. For since the square on BE is equal to the rectangle DB, BC ; therefore DB is to BE as BF is to BC that is the triangles DBC, FBE have one angle of the one equal to one angle of the other and their sides about the equal angles reciprocally proportional ; hence they are equal to one another. (Euc. VI. 15.)

28. The series

$$\begin{aligned} & \frac{n}{1 \cdot 2 \cdot 3} + \frac{n-1}{2 \cdot 3 \cdot 4} + \&c. + \frac{n-(n-1)}{n(n+1)(n+2)} \\ = & \frac{n}{1 \cdot 2 \cdot 3} + \frac{n}{2 \cdot 3 \cdot 4} + \&c. + \frac{n}{n(n+1)(n+2)} \end{aligned}$$

$$\begin{aligned} & \frac{1}{2 \cdot 3 \cdot 4} - \frac{2}{3 \cdot 4 \cdot 5} + \&c. - \frac{n-1}{n(n+1)(n+2)} \\ \text{and since the } n\text{th term of the first of these series} = & \end{aligned}$$

$$\begin{aligned} & \frac{1}{n(n+1)(n+2)} = \frac{1}{2n(n+1)} - \frac{1}{2(n+1)(n+2)} \\ \therefore (n-1)\text{th term} = & \frac{1}{2(n-1)n} - \frac{1}{2n(n+1)} \\ (n-2)\text{th term} = & \frac{1}{2(n-2)(n-1)} - \frac{1}{2(n-1)n} \\ & \&c. = \&c. \end{aligned}$$

$$3\text{d term} = \frac{1}{2 \cdot 3 \cdot 4} - \frac{1}{2 \cdot 4 \cdot 5}$$

$$2\text{d term} = \frac{1}{2 \cdot 2 \cdot 3} - \frac{1}{2 \cdot 3 \cdot 4}$$

$$1\text{st term} = \frac{1}{4} - \frac{1}{2 \cdot 2 \cdot 3}$$

Hence by addition we have the sum of the series.

$$\begin{aligned} & = \frac{1}{4} - \frac{1}{2(n+1)(n+2)} \\ \therefore & \frac{n}{1 \cdot 2 \cdot 3} + \frac{n}{2 \cdot 3 \cdot 4} + \&c. + \frac{n}{n(n+1)(n+2)} \\ & = \frac{n}{4} - \frac{n}{2(n+1)(n+2)} \end{aligned}$$

Also, the sum of the second series is

$$= \frac{1}{4} + \frac{2n+1}{2(n+1)(n+2)}$$

Therefore the sum of the original series

$$\begin{aligned} & = \frac{n-1}{4} + \frac{n+1}{2(n+1)(n+2)} \\ & = \frac{n(n+1)}{4(n+2)} \end{aligned}$$

29. Since imaginary and surd roots must



occur in pairs, the four roots of the equation must be

$$\frac{1}{2}\sqrt{3} + \sqrt{-1}, \quad \frac{1}{2}\sqrt{3} - \sqrt{-1}$$

$$-\frac{1}{2}\sqrt{3} + \sqrt{-1}, \quad -\frac{1}{2}\sqrt{3} - \sqrt{-1}$$

hence the required equation will be formed by equating to 0 the product of the four quantities

$$x - \frac{1}{2}\sqrt{3} + \sqrt{-1}, \quad x - \frac{1}{2}\sqrt{3} - \sqrt{-1}$$

$$x + \frac{1}{2}\sqrt{3} + \sqrt{-1}, \quad x + \frac{1}{2}\sqrt{3} - \sqrt{-1}$$

This gives  $16x^4 + 8x^2 + 49 - a$ .

30. (a). If we go on dividing by 19, the second dividend is 50, and consequently the result obtained will be half that produced by dividing 19 into 100; we may, therefore, obtain the remaining digits in the quotient by dividing the part already obtained by 2, placing the figures thus obtained to the right of those already found, and then using them as part of the dividend; thus we get

$$.052631578947368421.$$

(b). Since this repeater extends to its full limit of 18 digits, it follows that all the remainders, from 1 to 18 inclusive must have occurred in the course of the division; and when any remainder occurs, the subsequent division must give the digits in the decimal corresponding to the fraction having this remainder for numerator. Thus the fourth remainder is 12, and the division thereafter gives the decimal for  $\frac{1}{19}$ , which is therefore .052631, &c.

If therefore we wish to find the repeating decimal corresponding to any fraction with 19 for denominator, say  $\frac{7}{19}$  we have only to divide far enough to ascertain what digit in the value of  $\frac{1}{19}$  is the first digit in the value of  $\frac{7}{19}$ . Thus  $\frac{7}{19}$  gives .36, and we have simply to refer to the decimal for  $\frac{1}{19}$  to obtain the remaining figures; the value of  $\frac{7}{19}$  is thus found to be

$$.368421052631578947$$

$$31. (b^2 - c^2)x^2 + (c^2 - a^2)y^2 + (a^2 - b^2)z^2$$

$$+ 2c(b-a)xy + 2a(c-b)yz + 2b(a-c)zx$$

$$= (bx + cy + az)^2 - (cx + ay + bz)^2$$

$$= (bx + cy + az - cx - ay - bz) \times$$

$$(bx + cy + az + cx + ay + bz)$$

This last factor

$$= (b+c)x + (c+a)y + (a+b)z$$

$$= (b+c+a)x - ax + (c+a+b)y - by$$

$$+ (a+b+c)z - cz$$

$$= (a+b+c)(x+y+z) - (ax+by+cz)$$

$$= 0 \text{ if } \begin{cases} ax+by+cz=0 \\ a+b+c=0 \end{cases}$$

so that the equation is satisfied if these conditions hold.

32. Let  $k$  denote the sum originally held by the  $r$ th person, then after the first distribution he will have  $2k$

after the second,  $4k$

“ “ third,  $8k$

&c., &c.

after the  $(r-1)$ th,  $2^{r-1}k$

At this point the others together must have  $s - 2^{r-1}k$

which is therefore the sum he gives away at the  $r$ th distribution. After the  $r$ th distribution, therefore, he has

$$2^{r-1}k - (s - 2^{r-1}k) = 2^r k - s$$

after the  $(r-1)$ th he has  $2(2^r k - s)$

and after the  $n$ th distribution, he has

$$2^{n-r}(2^r k - s) = 2^n k - 2^{n-r} s$$

Hence he has gained or lost according as

$$2^n k - 2^{n-r} s > \text{ or } < 2^n k$$

$$\text{i.e. as } (2^n - 1)k > \text{ or } < 2^{n-r} s$$

$$\text{i.e. as } k > \text{ or } < \frac{2^{n-r} s}{2^n - 1}$$

$$33. \frac{2}{\sqrt{(x-a)}} + \frac{1}{\sqrt{(x-b)}} = \frac{1}{\sqrt{(x-c)}}$$

$$\therefore 2\sqrt{(x-b)}\sqrt{(x-c)} + \sqrt{(x-c)}\sqrt{(x-a)}$$

$$= \sqrt{(x-a)}\sqrt{(x-b)}$$

square and transpose, then

$$4(x-b)(x-c) + (x-c)(x-a) - (x-a)(x-b)$$

$$= -4(x-c)\sqrt{(x-a)}\sqrt{(x-b)}$$

square and transpose again, then

$$(1). 0 = 16(x-b)^2(x-c)^2 + (x-c)^2(x-a)^2$$

$$+ (x-a)^2(x-b)^2 - 8(x-c)^2(x-a)(x-b)$$

$$- 8(x-b)^2(x-c)(x-a) - 2(x-a)^2$$

$$(x-b)(x-c)$$

The same process with

$$\frac{2}{\sqrt{a}} + \frac{1}{\sqrt{b}} = \frac{1}{\sqrt{c}} \text{ gives}$$

$$(2). 16b^2c^2 + c^2a^2 + a^2b^2 - 8c^2ab - 8b^2ca -$$

$$2a^2bc = 0$$

In (1)  $x^3$  disappears, and on subtracting (2)

from (1) all the terms not involving a disappear, and the resulting equation can therefore be divided through by  $x$  leaving a quadratic.

34. Let the unit of price be such that the cost of a gallon of the mixture is 100; then the selling price is 108; hence the cost of a gallon of the poorer wine is  $\frac{100}{11}$  of 108 =  $98\frac{2}{11}$ ; and the cost of a gallon of the better  $\frac{100}{10}$  of 108 =  $101\frac{2}{11}$ . We are therefore required to mix wine costing  $98\frac{2}{11}$  per gallon with wine costing  $101\frac{2}{11}$  per gallon so as to form a mixture worth 100 per gallon. On every gallon of the poorer wine sold at 100 there is a gain of  $1\frac{9}{11}$ ; therefore on 55 gallons there is a gain of 100. Similarly, on 53 gallons of the better wine sold at 100 per gallon, there is a loss of 100; therefore the mixture must contain 55 gallons of the poorer wine for every 53 of the better.

PROBLEMS.

35. If  $ax + by = 1$ ,  $cx + dy = 1$   
 $xy(ad + bc) = 1$  shew that

$$\frac{a}{c} + \frac{c}{a} + \frac{b}{d} + \frac{d}{b} = 1$$

36. An oarsman finds that during the first half of the time of rowing over any course he rows at the rate of five miles an hour, and during the second half at the rate of four-and-a-half miles. His course is up and down a stream which flows at the rate of three miles an hour, and he finds that by going down the stream first and up afterwards, it takes him an hour longer to go over the course than by going first up and then down. Find the length of the course. (By Arithmetic.)

37. If  $f(x)$  on division by  $x - a$  and  $x - b$  respectively leaves remainders R, S, show that on division by their product it leaves for remainder

$$\frac{R - S}{a - b}x + \frac{Sa - Rb}{a \cdot b}$$

38. A merchant sells tea, mixed in the ratio of five pounds of green tea to two of black, so as to gain ten per cent. on what the tea cost him. In what proportion must he mix them so as to gain 21 per cent., without increasing the selling price per pound, seven

pounds of green tea being worth nine of black?

39. Solve the equation

$$2x\sqrt{(1-x^2)} = a(1+x^2)$$

40. An express train leaves Hamilton for Toronto and at the same time a freight train leaves Toronto for Hamilton. They meet at twenty-five minutes past twelve and reach their destinations at ten minutes to one and five minutes past two respectively; find when they started.

41. A and B set out together to walk a certain distance. A walks one half the distance the first day, one-third of the remainder the second day, one-fourth of the remainder the third day, and so on; B walks  $\frac{1}{n+1}$ th part of the distance the first day,  $\frac{1}{n}$ th of the remainder the second day,  $\frac{1}{n-1}$ th of the remainder the third day, and so on: prove that after  $n$  days they will be together again. Also find how long it will take each to finish the journey.

42. Prove that  $\sin(A - B) \cos(A + B)$   
 $+ \sin(B - C) \cos(B + C) + \dots$   
 $+ \sin(N - A) \cos(N + A) = 0$

43. These are  $n + 1$  vessels which contain each the same quantity ( $a$ ) of fluid. The contents of the first are distributed equally among the others; then those of the second are distributed in the same way; then those of the third, and so on. Prove that when the last vessel has been thus treated the quantity of fluid contained then in the  $r$ th is

$$a \left(1 + \frac{1}{n}\right)^r \left\{ \left(1 + \frac{1}{n}\right)^{n-r+1} - 1 \right\}$$

44. If  $a, b, c$  are in arithmetic progression, and so also  $x, y, z$ , while  $ax, by, cz$  are in geometric, and  $\frac{x}{a}, \frac{y}{b}, \frac{z}{c}$  in harmonic, there will

$$1 - \frac{b^2}{a^2c}, \frac{a}{2b}, \frac{c}{ac} = 1$$

be in harmonic.

45. Solve the equation

$$(x^2 + 3x^2 + 34x - 37)^{\frac{1}{3}} \\ (x^2 - 3x^2 + 34x - 37)^{\frac{1}{3}} = 2$$

## MCGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1880, -FIRST YEAR. EUCLID -ARITHMETIC.

*Examiners, --*ALEXANDER JOHNSON, LL.D., G. H. CHANDLER, M.A.*Candidates are requested to write their answers on two separate sets of papers headed A and B respectively to correspond with the questions.*

## A

1. If four right lines be proportionals, the rectangle under the extremes is equal to the rectangle under the means.

a. The rectangle under the sides of any triangle is equal to the rectangle under the perpendicular on the base and the diameter of the circumscribed circle.

2. From a given circle cut off a segment containing an angle equal to two-thirds of a right angle.

3. Define a tangent to a circle, and state and prove the proposition of Book III, which enunciates the fundamental property of the tangent.

4. If a rectangular piece of land 284 feet long by 147 feet wide be sold for \$140.00, what is the cost per acre?

5. Reduce the mixed circulating decimal  $3\frac{65}{100}$  to a vulgar fraction, and verify the result.

6. Find to three places of decimals (1) the length of the diagonal of a square whose area is one square inch, and (2) the ratio of his

length to that of the diameter of a circle having the same area.

## B.

7. Find the centre of a given circle.

8. Describe an isosceles triangle having each of the angles at the base double of the third angle.

9. If the sides of two triangles, about each of their angles, be proportionals, the triangles shall be equiangular to one another, and shall have those angles equal which are opposite to the homologous sides.

10. If two similar parallelograms have a common angle, and be similarly situated, they are about the same diameter.

11. What is the bank discount on a note for \$614.30, due two months hence, discounting at 7 per cent?

12. A can do a piece of work in 7 days, which A and B working together can do in  $4\frac{1}{2}$  days. In what time could B alone do it.

13. Divide MMDCLXC by  $\frac{2}{3}$  of  $\frac{1}{2}$ .

INTERMEDIATE EXAMINATION, 1880.

TRIGONOMETRY—ALGEBRA.

Examiners—ALEXANDER JOHNSON, LL.D., REV. A. N. MCQUARRIE, B.A., GEORGE H. CHANDLER, M.A.

A.

1. Given  $\tan A = \frac{4}{3}$ , find  $\sec A$  and  $\operatorname{versin} A$ .

2. In any triangle prove

$$\cos \frac{1}{2} A = \sqrt{\frac{s(s-a)}{bc}}$$

3. Assuming the diameter of the earth to be 7,926 miles, calculate the dip of the sea horizon as seen from a mountain 4 miles high.

4. Prove that the expression for any angle in circular measure can be converted into seconds by multiplying it by a constant number, and calculate the number.

5. Define a logarithm, and prove that the logarithm of a quotient of two numbers is equal to the difference of the logarithms of the numbers.

6. What convention is laid down in order to affix a meaning to such expressions as  $a^{-\frac{1}{2}}$  and  $b^{\frac{2}{3}}$ ? Adopting it, find what these denote, and find other expressions for them.

7. Solve the equations:—

$$\frac{x}{y} = \frac{a}{n}, \quad x + y = a;$$

$$\frac{ax}{b(x+c)} = \frac{bx}{a(x+c)} = 1.$$

B.

8. Simplify the expression:—

$$\frac{(1+x)^{\frac{1}{2}} + (1-x)^{\frac{1}{2}}}{(1+x)^{\frac{1}{2}} - (1-x)^{\frac{1}{2}}}$$

first by rationalizing the numerator, and then by rationalizing the denominator: and then add together your two results.

9. Find the values of  $x$  and  $y$  from the simultaneous equations:

$$3^y = \frac{27}{3^x}, \quad 2^y = 2^x \sqrt{4}.$$

10. Show that the sum of the cubes of any three consecutive numbers is divisible by three times the middle number.

11. Prove that

$$\tan(A+B) = \frac{\tan A + \tan B}{1 - \tan A \tan B}$$

*a.* Hence deduce the value of  $\tan 2A$  and  $\tan(A-B)$ .

12. A yacht is 5.8 nautical miles from the mouth of a harbor bearing S. b. W.; in order to reach the harbor she is obliged, by reason of a southerly wind, to make two courses, the first E. S. E., the other S. W. b. W., calculate the distance run in each course, and the whole time, the rate of sailing being 7 knots.

C.

13. Find the sine of  $1^\circ$ .

14. To find the distance of a column of cavalry I ascertain with a micrometer that its vertical height subtends an angle of  $4'$ ; if we assume the height of a mounted soldier to be 8 feet, what is the distance of the column?

15. Solve the equations:

$$\frac{7x+1}{x-1} = \frac{35}{9} \cdot \frac{x+4}{x+2} + \frac{51}{9}$$

$$\frac{2}{x - \sqrt{2-x}} + \frac{2}{x - \sqrt{2+x}} = x.$$

16. The plate of a looking-glass is 18 inches by 12, and it is to be framed with a frame of uniform width, whose area is to be equal to that of the glass; find the width of the frame.

## CANADIAN HISTORY.

THE following is a series of questions and answers in Canadian History for promotion from the III. Class Public School course to the IV. Class:—

(1.) What is *representative* government and when was it introduced into Canada?

Ans:—The whole people of Canada do not meet together to make laws to govern themselves; but, instead, every four or five years they elect men to *represent* them, one man often representing several thousand. These *representatives* are called Members of Parliament; and the city in which they meet to make laws is called the Capital.

This kind of Government was first introduced into Canada in 1792, the Capital of Lower Canada (Quebec) being the City of Quebec, and that of Upper Canada (Ontario), being Newark (now called Niagara).

(2.) What is the meaning of U. E. L?

Ans.—In 1776 thirteen colonies in North America, which belonged to England as Canada now does, decided that they would not be under British rule any longer; declared that they were able to take care of themselves; declared that they would be *independent* of England; and, *uniting* together to defy England, they called themselves *United States*. Canada was urged to join in, but refused. Now, there were in those *United States* a great many men who did not like this rebellion against England; they were true and *loyal* to her; they did not want the British *Empire* broken up in this way, but *united*—hence they were called United Empire Loyalists, of which the initials are U. E. L. The United States said to these U. E. L's if you won't

help us against England you shall not remain in our country; we will burn your houses and barns; we will take away your cattle and farms, and make the place too hot for you—and they did. Thousands of the U. E. L's were glad to get away with their lives; many came to Canada; and England, to make up to them what they had lost by being true to her, gave them free homes all over the country and helped them in other ways.

(3.) What was the Clergy Reserve Bill.

Ans.—In 1792, when Canada was divided into Upper and Lower and Representative government introduced, England was anxious that the Church of England should be the religion of Canada as it is of England, and hence passed a Bill or Law that one-seventh of the unsurveyed lands of Upper Canada (Ontario), should be set aside for the support of the *protestant* clergy. This word *protestant* in the Bill caused all the after trouble; for, after a while, when the Church of England (which no doubt was meant) claimed the right to all these "Clergy Reserve Lands" other *protestant* churches, as Baptists, Methodists, Presbyterians, &c., said it was not fair; the Bill said *protestant* clergy, and they claimed to be protestants as much as the Church of England. Although the Bill was passed in 1792 no effort was made to put it in force till 1836. After a great deal of quarrelling the matter was finally settled in 1854 by the government selling all the Clergy Reserve Lands and dividing the money up among the townships, counties and cities of the province, to use as they

saw fit. This giving up to *worldly* purposes (secular means worldly) what had once been set aside for religious purposes, is known as the "Secularization of the Clergy Reserves."

(4). What is meant by the Act of Union.

Ans.—When England divided Canada into Upper and Lower in 1792 she thought everybody would be satisfied; but, after a while, nobody seemed satisfied; in Lower Canada the French and English population were quarrelling continually; in Upper Canada the Clergy Reserve Bill and the Family Compact caused trouble; and in 1837 one Mackenzie headed a rebellion near Toronto, but it came to nothing. In 1840 England hoped to please everybody by re-uniting Canada by the Act of Union, which among other things introduced *Responsible* government into Canada, and Kingston was made the Capital of the United Canadas. It was satisfactory for a very short time.

(5). What is meant by Premier or Prime Minister?

Ans.—When all the representatives of the people assemble at the Capital the Governor asks some prominent member of the Parliament to form a Government, or Cabinet, or Ministry; this man is called the first (prime) minister or Premier and the dozen or so other prominent members whom he asks to help and advise him how to introduce and carry out the laws are called ministers or ministers of the Crown, and he and they are called the Ministry, or Cabinet or Government. Those members who side with the ministry are called *Ministerialists* and those who oppose the ministry, *the Opposition*, the head man of the opposition is called the *Leader of the opposition*. At present Sir John A. Macdonald is the Premier and Alexander Mackenzie Leader of the Opposition.

(6). What is meant by *Responsible*

Government and when was it introduced into Canada?

Ans.—Whenever the Prime minister or his Cabinet loses the Confidence of a majority of the members of Parliament, they (the opposition) generally make it known by voting against some Ministerial Bill or by a direct vote of *want of confidence*. When this happens the ministry are, according to usage, expected to resign, and then the Leader of the opposition is commonly asked to form a new Ministry or Cabinet and the old premier becomes the leader of the opposition. As the Premier is thus held *Responsible* to the Parliament for what he does, he has to be very careful to do right, or he will soon be turned out. This is why the Government is called *Responsible*. It *has* happened that neither party has had enough friends to defy the other and that a ministry has been formed of members of both parties. This is called a Coalition Government from *Coalesce* to run together. Responsible Government was introduced into Canada by the Act of Union, before mentioned, in 1840.

(7). What is meant by the Family Compact?

Ans.—In 1792 when Representative Government was first introduced into Canada the Premier and his Cabinet were not made responsible to Parliament for what they did—they were not in any case expected to resign, and they didn't resign, no matter what happened; and the ministers managed to keep themselves and all their families and friends in office, and the arrangement by which they did so was called the *Family Compact*. This bad state of things ceased to exist in 1840, when by the Act of Union *Responsible* Government was introduced.

(8). What three powers must assent to a Bill before it becomes law?

Ans.—In England, the Commons, the Lords and the Sovereign; in

Canada, the Commons, the Senate and the sovereign's representative.

(9). Explain the Ontario manner of Government?

Ans.—In Ontario, instead of the Commons we have the *Legislative Assembly* (really the same thing, being made up of representatives elected every four years), no Senate, nor anything corresponding to it; and a Lieut.-Governor, who acts in the Governor's place.

(10). Give the derivation of Canada, Quebec, Ontario, New Brunswick, Nova Scotia, Manitoba, Keewatin, Toronto, Montreal, and Hamilton?

Ans.—Canada is derived from Kanata, the Indian name for a village: when Cartier asked the Indians what was up the river they said Kanata, a village: he thought they meant the Country; Quebec means a *strait* and the river where this city is located is very *strait*

or narrow; Ontario is the Indian name for beautiful and is applied to the Lake from which the province takes its name: New Brunswick is named after old Brunswick in Germany: Nova Scotia is the Latin for *New Scotland*: Manitoba is an Indian word meaning the *Speaking God*: Keewatin ought to be Keewaydin, that is the Indian for the Home of the North West wind: Toronto, is Indian for *place of meetings*, that is the meeting of the trees which were on the brink and the water (trees in the water): Montreal is an abbreviation of the French Mont Royal, meaning royal or grand mountain, which Cartier gave to a hill near the present site of the City of Montreal: Hamilton is named after a farmer, George Hamilton, who took up a farm where the city now stands, in 1813. He was accompanied by another farmer, Robert Tapley, who took up a farm on the mountain east of the city. Tapleypoint is named after him.

## AN OBJECT LESSON.

(Selected.)

The result desired—thought—observation: the method to be pursued—familiar conversation between teacher and pupils. The initials W. B. mean "write on blackboard," and the points thus obtained, with more advanced classes, can be woven into a composition.

### GOLD.

TEACHER—What is this?

CLASS—A gold ring.

T.—It is not the ring, but the substance of which it is composed, that I want to speak of. What is it?

C.—Gold. (w. b.)

T.—What properties or qualities does it possess?

C.—(different members). It is hard,

yellow, smooth, shining. (w. b.)

T.—Will it bend easily?

C.—No; it is stiff.

T.—If I let it fall will it break?

C.—No; it is hard.

T.—Well, so is glass hard: harder than gold, but it will break easily; think again.

C.—It is tough. (w. b.)

T.—That is right, but there is another word meaning the same thing, oftener used, *tenacious*. Can you see through it?

C.—No; it is solid.

T.—That is not right, for glass is solid, but I can see through it—try again.

C.—It is thick—it is dull.

T.—Neither word will do. When we cannot see through any substance we call it *opaque*: (w. b.) When we can see through it, we call it transparent: (w. b.) which is gold?

C.—Opaque.

T.—If I put a piece of gold in the fire, what will happen?

C.—It will melt.

T.—Yes, but we have another word which we commonly use: it is *fusible*, (w. b.) When gold melts there is no *dross* left: so we call it a *perfect* (w. b.) metal. Look inside the ring:

C.—It is stamped.

T.—Another word for *stamp* is *impression*: so we say gold is *impressible*. (w. b.) Is glass impressible?

C.—No.

T.—Right. Gold can be beaten out into thin, very thin, leaves; what do you call this quality?

C.—Tenacious.

T.—No; this quality is called *malleability*. (w. b.) Is glass malleable?

C.—No.

T.—Did any of you ever try "pounding out" any metal?

C.—Yes, we've beaten out lead balls flat.

T.—Then lead also is malleable. Gold is *ductile*: (w. b.) that is, it can be drawn out into wire. Read now from the blackboard the properties of gold.

C.—It is hard, yellow, smooth, shining, heavy, tough, tenacious, solid, opaque, fusible, impressible, malleable, and ductile.

T.—Name the uses of gold, and I will write them on the board.

C.—It is used for money.

T.—Instead of money say coins.

C.—For coins, watches, rings, brooches.

T.—Use some word to express all such things as rings, brooches, pins, buttons and studs.

C.—Will jewelry do?

T.—Yes: are there any other uses to which gold is put?

C.—Picture frames.

T.—No.

C.—Well, to cover picture frames.

T.—You are right, this time; what do you call this *overlying* other things with gold? What are the edges of this book?

C.—Gilt; and overlying with gold is called gilding.

T.—You are using your thoughts well, and I am pleased; gold is also used for goblets, vases, spoons and such things. Now, read from the board the uses of gold.

C.—Gold is used for coins, watches, jewelry, gilding, for goblets, spoons and vases.

T.—Where is gold found?

C.—In mines, in the ground.

T.—Right: so because it is found in mines it is called a mineral. But in what countries is it found?

C.—In California and British Columbia.

T.—Yes, it is found in most hot countries and some cold ones.

#### QUESTIONS AND ANSWERS.

Teachers, let your first questions to your class be:—

(a). Review of previous lesson.

(b). Lessons drawn from previous lesson.

(c). Questions upon present lesson, as:—

(a). Definite, — some point to be explained.

(b). Logical, — some information to be gained.

(c). Questions requiring thought in answering.

#### THE OBJECT OF QUESTIONING.

(a). To increase the pupil's knowledge.

(b). To develop originality.

(c). To develop individuality.

(d). To awaken thought.

(e). To deepen previous impressions.



- (f). To promote progress.  
 (g). To cultivate a love for study.  
 (h). To develop mental power.

## GENERAL RULES.

- (a). Vary the questions.  
 (b). Ask easy questions at first.  
 (c). Do not suggest the first word of the ans.  
 (d). Never ridicule an answer.  
 (e). Do not slavishly depend upon the text-book.  
 (f). Teach without the text-book.  
 (g). Let pupils question each other.  
 (h). Challenge pupil's knowledge.  
 (i). The question must not suggest the answer.  
 (j). Avoid the *set* questions of the text-book.

## HOW TO CONDUCT A RECITATION.

- (a). Briefly review previous lesson.  
 (b). Critically examine the day's lesson.  
 (c). Reproduce in pupil's language the day's lesson.

## CAUTION.

- (a). Teach one thing at a time.  
 (b). Begin at the beginning.  
 (c). Fix and hold the attention.  
 (d). Cultivate exact, concise and ready expressions.  
 (e). Do not slavishly depend on any text-book  
 (f). COMPREHEND THE DIFFERENCE BETWEEN HEARING A RECITATION AND TEACHING.

## THE RESULTS REQUIRED.

- (a). Development of the faculties.  
 (b). Acquisition of knowledge.  
 (c). Application to life's uses.  
 (d). Self-reliance ; self possession.  
 (e). Be thorough—not how much—but how well.

## PREPARATION.

If it is necessary for pupils to prepare a lesson it is ten times more necessary for the teacher to prepare the same in order to teach *well*; any one can dawdle and waste time ; the prepared teacher alone teaches.

## PERSONALIA.

The "A. A." examinations of McGill College, Montreal, will be held in the Hamilton Collegiate Institute, beginning on the 14th prox. Pupils from any school in Western Ontario may take this examination in Hamilton on complying with the regulations of the University prescribed for local examinations. Applications will be received by the Principal of the Hamilton Coll. Inst. up to the 12th May.

Entrance examinations to High School and Coll. Institute will be held on the 28th and 29th June next. Intermediate examinations begin on the 5th July. Examinations for the Dominion Gilchrist Scholarship will be held in Ottawa, Kingston, and Toronto, beginning on the 10th June. Matriculation examinations of Toronto University begin on 24th June.

Wentworth Teacher's Association will hold its regular semi-annual meetings on the 14th and 15th prox. Elgin Teacher's Association at St. Thomas on the 13th and 14th May.

Miss M. A. Mills, recently appointed head teacher of the Senior Girl's School, Guelph, is an under-graduate of Toronto University, an A. A. of McGill University, Montreal, and the possessor of a 1st class non-professional certificate; Miss Mills was formerly a student of the Hamilton Collegiate Institute and held a position in the City Schools of Hamilton previous to her appointment in Guelph.

J. Howard Hunter, M. A., Principal of the Institution for the Blind, has been nominated for the Senate of Toronto University by the Alumni Association of Brantford. In a circular letter to the electors of Toronto University, he says:—The first and most pressing question is to restore to Convocation its proper functions and influence, which through concurrence of circumstances have become almost obsolete. The publication of the Senate's proceedings—except when such proceedings are of an exclusively personal complexion—is now admitted to be indispensable. Mr. Hunter is an earnest friend of the University, and will be an acquisition to the Senate, his long and intimate connection with the educational affairs of this Province, and his thorough knowledge of the University and School systems of other lands, make the nominee of the Brantford Alumni Association a desirable candidate for the Senate, and we hope to see him elected.

The other candidates, so far as we have heard, are John King, M. A., Berlin, and D. A. O'Sullivan, M. A., of Toronto.

For want of space we are obliged to hold over for a month the publication of several interesting papers.

Contributions for publication in the SCHOOL MAGAZINE should be addressed to THE EDITORS, SCHOOL MAGAZINE, HAMILTON.