

**BLG520E Cryptography**  
**1<sup>st</sup> Homework**

Work on the cryptanalysis of the cryptosystem,  $S_1 = (P_1, C_1, K_1, E_1, D_1)$ , which is assigned to you. The ciphertexts are produced by using the applets given underneath the name of the cipher. The most of the plaintexts are Turkish, there is one in English. The letters Ç, Ğ, İ, Ö, Ş, Ü in Turkish are replaced by C, G, I, O, S, U, respectively before encryption. You can use the documents given in the reference list and in Ninova course source files for Turkish language frequency analysis.

1. Cryptanalysis of  $S_1$ .
  - a. Try only known ciphertext attack.
  - b. If you can not find the plaintext and the key by applying only known ciphertext attack, then try known plaintext attack.
2. Building a product cipher as  $S_2 = S_1 \times S_1$  and cryptanalysis of  $S_2$ .
  - a. Choose a random key for second  $S_1$  with the same length as found in 1.
  - b. Encrypt the given ciphertext for the second time by using second  $S_1$ .
  - c. Apply the cryptanalysis steps defined in 1 to the result of 2.b.
3. Building a product cipher as  $S_4 = S_1 \times S_3$  and cryptanalysis of  $S_4$ .  $S_3$  is a permutation cipher given in <http://crypto.interactive-maths.com/permutation-cipher.html>.
  - a. Choose a random key for  $S_3$  with the same length as found in 1.
  - b. Encrypt the given ciphertext for the second time by using  $S_3$ .
  - c. Apply the cryptanalysis steps defined in 1 to the result of 3.b.

**Note:** Describe your work step by step and give the results of all the steps. You do not need to deliver the codes that you used, but you have to explain what the codes are doing.

**References:**

- 1) Arkan Kh Shagr SABONCHI, Bahriye AKAY, “Cryptanalysis of Polyalphabetic Cipher Using Differential Evolution Algorithm”, Tehnički Vjesnik 27, 4(2020), 1101-1107.
- 2) Şefik İlkin SERENGİL, “Attacking Turkish Texts Encrypted by Homophonic Cipher”, Master Of Science, Computer Engineering, the Institute Of Science and Engineering, Galatasaray University, June 2011.
- 3) Mehmet Emin Dalkılıç, Gökhan Dalkılıç, “On the Cryptographic Patterns And Frequencies in Turkish Language”, T. Yakhno (Ed.): ADVIS 2002, LNCS 2457, Pp. 144–153, 2002.

## Autokey Cipher

<http://practicalcryptography.com/ciphers/polyalphabetic-substitution-category/autokey/>

### Plaintext:

SIMDIYEKADARTESADUFETTIGIMINSANLARDANBIRTANESIBENIMUZERIMDEBELKIENBUYUKTESI  
RIYAPMISTIRARADANAYLARGECTIGIHALDEBIRTURLUBUTESIRDENKURTULAMADIMNEZAMANK  
ENDIMLEBASBASAKALSAMRAIFEFENDININSAFYUZUBIRAZDUNYADANUZAKBUNARAGMENBIRIN  
SANATESADUFETTIKLERIZAMANTEBESSUMETMEKETMEKISTEYENBAKISLARIGOZLERIMINONUN  
DECANLANIYORHALBUKIOHICDEFEVKALADEBIRADAMDEGILDIHATTAPEKALELADEHICBIRHUSU  
SIYETIOLMAYANHERGUNETRAFIMIZDAYUZLERCESINIGORUPDEBAKMADANGECTIGIMIZINSANLA  
RDANBIRIYDIHAYATININBILDIGIMIZVEBILMEDIGIMIZTARAFLARINDAINSANAMERAKVERECEKBI  
RCIHETOLMADIGIMUHAKKAKTIBOYLEKIMSELERIGORDUGUMUZZAMANCOKKEREKENDIKENDIM  
IZESORARIZACABABUNLARNEDENYASIYORLARYASAMAKTANEBULUYORLARHANGIMANTIKHAN  
GIHIKMETBUNLARINYERYUZUNDEDOLASIPNEFESALMALARINIEMREDIYORFAKATBUNUDUSUNU  
RKENYALNIZOADAMLARINDISLARINABAKARIZONLARINDABIRERKAFALARIBUNUNICINDEISTES  
ELERDEISTEMESELERDEISLEMEYEMAHKUMBIRERDIMAGLARIBULUNDUGUNUBUNUNNETICESIOL  
ARAKKENDILERINEGOREBIRICALEMLERIOLACAGINIHC AKLIMIZAGETIRMEYIZBUALEMİNTEZAH  
URLERINIDISARIVERMEDIKLERINEBAKIPONLARINMANENYASAMADIKLARINAHUKMEDECEKYER  
DEENBASITBIRBESERTECESSUSUILEBUMECHULALEMIMERAKETSEKBELKIHICUMMADIGIMIZSEY  
LERGORMEMIZBEKLEMEDIGIMIZZENGINLIKLERLEKARSILASMAMIZMUMKUNOLURFAKATINSANL  
ARNEDENSEDAHAZIYADENEBULACAKLARINITAHMINETTICKLERISEYLERIARASTIRMAYITERCIHED  
IYORLARDIBINDEBIREJDERHANINYASADIGIBILINENBIRKUYUYU AINECEKBIRKAHRAMANBULMAK  
MUHAKKAKKIDIBINDENEOLDUGUHICBILINMEYENBIRKUYUYUAINMEKCESARETINIGOSTERECEKBI  
RINSANBULMAKTANDAHAKOLAYDIRBENIMDERAIFEFENDIYIDAHAYAKINDANTANIMAMSADECE  
BIRTESADUFESERIDIRBIRBANKADAKIKUCUKMEMURIYETIMDENCİKARILDIKTANSONRANEDENCI  
KARILDIGIMIHALABILEMIYORUMBANASADECETASARRUFICINDEDILERFAKATHAFTASINAYERIM  
EADAMALDILARANKARADAUZUNMUDDETISARADIMBESONKURUSPARAMYAZAYLARINISURUNM  
EDENGECIRMEMITEMINETTIFAKATYAKLASANKISARKADASODALARINDASEDIRUZERINDEYATMA  
NINSONUGELMESINIICAPETTIRIYORDUBIRHAFTASONRABITECEKOLANLOKANTAKARNESINIYENI  
LEYECEKKADARBILEPARAMKALMAMISTISONUCIKMAYACAGINIBILEBILGIRDIGIMBIRCOKKABU  
LIMTIHANLARININHAKIKATENSONUCIKMAYINCANEDENSEGENE UZULUYORARKADASLARDANH  
ABERSIZOLARAKTEZGAHTARLIKICINMURACAATETTIGIMMAGAZALARDANRETCEVABIALINCAYE  
ISICINDEGECEYARILARINAKADARDOLASIYORDUMBIRKACTANIDIKTARAFINDANARASIRADAVET  
EDILDIGIMICKISOFRALARINDADAHIVAZIYETIMINUMITSIZLIGINIUNUTAMIYORDUMISINGARIBISI  
KINTIMINARTTIGIVEIHTIYACLARIMINBENIBUGUNDENYARMACIKARMASIBILEIMKANSIZHALEGE  
LDIGINISPETTEBENIMDECEKINGENLIGIMMAHCUPLUGUMARTIYORDUEVVELCEBANAI SBULMALA  
RIICINMURACAATETTIGIMVEHICDEFENAMUAMELEGORMEDIGIMBAZITANIDIKLARASOKAKTARA  
STLADIGIMZAMANBASIMIONUMEEGIPHIZLAGECIYORDUMEVVELCEBANAYEMEKEYEDIRMELERINI  
SERBESTCERICAETTIGIMVESIKILMADANODUNCPARAALDIGIMARKADASLARIMAKARSIBILEDEGIS  
MISTIMVAZIYETINNASILDIYESORDUKLARIZAMANACEMIBIRGULUMSEMEILEFENADEGILTEKTUK  
MUVAKKATISLERBULUYORUMDIYECEVAPVERIYORVEHEMENKACIYORDUMINSANLARANEKADA  
RCOKMUHTACOLURSAMONLARDANKACMAKIHTIYACIMDAOKADARARTIYORDUBIRGUNAKSAMU  
STUISTASYONLASERGIEVIARASINDAKITENHAYOLDAAGIRAGIRYURUYORANKARANINHARIKULA  
DESONBAHARINIDOYADOYAICIMECEKEREKRUHUMDANIKBINBIRHAVAYARATMAKISTIYORDUM  
HALKEVININCAMLARINDANAKSEDEREKBEYAZMERMERBINAYIKANRENGIDELIKLEREBOGANGU  
NESAKASYAAGACLARININVECAMFIDANLARININUZERINDEYUKSELENVEBUGUMUDURTOZMUDU  
RNEOLDUGUBELLIOLMAYANDUMANHERHANGIBIRINSAATTANDONENVEPARCAPARCAELBISELE  
RININICINDESESSIZVEBIRAZ

### Ciphertext:

JUIAGQNIBEBTHSRWYXEWNNKBFQTAMVYSRQLNSLRGBVVLIOIFQNYMMDCLHVJQOOJIYLCCHLN  
CMSKMQIGUGSIUZSKIUA EABLNREPCCKOKKAIRLLBTUXVZCNVLEYTCKHWVBXVGEFRFUOIYNHHM  
ZEMKQNSQYHJMDFBSSLADSKMCSIRVFMSHNRVQANNLMZZZCQUALLNXDXNLUCAXVTNKSUTM

VNHUVVOARVNLEFAWYXEWNNOEZXSKEDIMTQBRLWVQWLGQOXFQOOBEXOGWGFYOVTLKZAR  
OQTKFHXMWZCARRWNQPCNVJOEPYZSBKTPBSKRLNGYOFPVNEMIUEEIDDHGUOHOPLBHPXDA  
AIVAOISIFFPZJVALZCQYLQMPFIMLZHCRTBRVZLNJBDIELMGTCCLCLBPWZPMYWEVVRVVPNQBDKZ  
GHC GOKKFQFQZAZVYSRQLNSLRVZLZPYBIALIGJVTQJOTPQFDQJHGQFLTSMPPQFBMZZYLRRNYDR  
QAVAVNEEEAWZVROXIBFKVMJPVVWSQTRTSIPCNIWEHKDSBYRTFYGXWOTQJMRSILAU LPOFTMG  
ZMCAKXGFOUIEHSORQLSQVCMEWQEJWQATIAADUOLBLAPDVACDWVWOJT YFPLSRKACTMNOU  
YYZICFYFYLNXPMTNBKUTVQPHVQULBLGREBLVYYVZLSDLLXDXBOEVWANWNTFEQQSLLDIYI  
VUEMHUPSUNYYRYBENNEOFOQOJERHPKPAGZZNLZALDRUYDZAYDZAYASIXASISOETZ FVYDRJVU  
ESSRJRVAWIMUECOCPCALGQFWIAWEIJHPMJWIUWLIXIJHPMJOIUWJIYEF OGMISLQSLZQRJTMROM  
UCCOXFAHQHOHAAOHRNVPI LQQPSZOVKVNNSPRUQYIXWEIHWIMDICMOLPVUZPRKORIPINQPIRT  
KMSKISMSIXQXGZLFSIKFGIYXQHNA YQLLLZYMUQFIUQNEIUZH ZWPHZSYISIXMQOXTPFVYMRVRZ  
YNWNKAVIWL DZSYAYCXMLXOOINCGVNCIEEEWVUBAZUF AVSXWGV LWWWMAFWVCXIDBGPCS  
YXIXIDIWIKSOOUWPUJLTMCTUCXUSIPQFAQGKWVEZVDKAZLFQSKFQOOMSMPQFHQVFHRYOSYP  
ZVPORCWSLRKULMALMGUJGHA VOETLERYIXSTVYSRAPDV AWHHNZECIFACMLEEY YEDUVLCRSY  
IKIUUBNLFBVOEXZSDIPTWVGLVRATZRETGZFEPKBLVFQFSUTYFUTBZQLFJVUIKL VVQDRZUYNAN  
BIYIEQRQOMYJVVXVGLIUGHCCMXFKVUBPIKMHEBGLZBEXGHKWEHKUSDSLQQLFVRRPQYU FKCI  
VPTKOU PGRZFGVXVGLIUGHKESPQWK TIL IEMZWF BKFVWVIBFKVSOARVOMLZB EEMNNTHN NOSAIR  
TRZHVZNRH ZMLJVFM SHNCVGIFIBARILDKVGDNVFAZAMDQUEEMTXFARWYXEVYWMVMIJLZSBV  
BBDNUINUMCUGGGEDMKYKQKH XVOLONTQVDZSE DVCHNESBRUEAGLONTQVDZOT PQNIXIIWEN  
QJSDCKPRHMTAQEU EWEUEKRMFZTCSLGLVOIUNLORYHKFMHSNGA QMEIKIRLMQAODULLUIYKR  
RNNALZXNGTXQQNLVEKIVIDBHAAOOMFHCJRLSBYRZMWLZRGYIJCECFGVXRZKHGVXQGUZFIYQ  
GIFBVJTDIYYKKEYSKYKASNBSSDRCOGADOUIYDRARGIJYCMICMHVGNWQYNBZSBVHYSY GKWTZ  
MAKNXMTXVBRWILSPZUBBNKHSTGRSPVKEDMDSNEXZZKNYHKKNKNOSZAMQMAQJILMNIIOC  
HKBBLLVQICEBKRLYKMTETUAGGCUWXGCGKOA EIPIHQYMCQWIHQCHOOZPJ OZOPSBCPEVINNT P  
MGTHR VYIEPNSVRADMXSHRHUWXGCGSZCYVRFEAWH KRFIADHPOXICUPYRDRCLDRVLNYDBRYS  
JDFDIQOVTVZQTL SGRSBKZNQXUWZNOURTGT TBKBFUGOMLARAQDLNIHTPVZTDMVLJVCLGRKSG  
GQFLGORFIEETMJAIQYABIQABDRLRVWJOJLSASLLWBK KKNKWIXBDZKYIEDFVNUAFIIAVIMEWEY  
MEHLOTPQISUAQPZSZFIIYDRLNKIYAGQTESQKMGCYQGMUHEAOHYQAVHBUZCRODLSAZVCZOSZ  
VHIJQLQFBSUVGIDBGIXBOMOPOMGHV TYRKXIEJQVVCYT COXKHLDVZYCZ WATUKSZNIDMJUVEV  
ESZUSTDNEWHOKTQQYXRBLTFXGMNHRKQNM PKOVYOKVXUGPOGPSWAJXUXNUYFKLSSMYYPX  
ZFLPEJSOUTEBFLDITCZVUWZNOURTGT TBKBFDPUXHLNGQERYNMQFESSCQKRZSMPJGHU UAMQ  
WIXTDZKDOBACHKRKLTCAVBRI PHGUMMBMSVNI GVGUSRAUTLOHAHODNIESTLSAVYPQPXZFLPE  
ZEZEICQHSPQHTVDMY MJMEJWWKDIJBEEVBVIKBFDKAUFMDUKLLZOGUAQSUECPLUIGTPIXSM DR  
CLDRAXABIDSSBZDMEMRMVQOALUUNTHUTESQLRTAVYDAGPVWPHMYCDLSKADIMAOEZIDMDO  
VTLSMPGQAPQJMYEII TIOXKSENOWNPKWEVTSCLXZTFPLZICOKRZSQFMTERZZRXTSIDCVVHIUOM  
GV IOTLSAZQMMVYSRNYEBABQEBCRKDWVDMWVEUTGLGFFLMFQLNBDCZKKKTTS GHVQKDCWW  
DDOBAUTZYFKLSPZUAVVRQMNMEKTGCKMUAQHNDYGRCGAIMOIVVAIEDSSVWEXPTCBSDYORL  
RAMQIYAZLWIIULYRRNXIEHNZVRUCINYDOQFSVNSIUIUWLIGCWALQGM MEMWITIUVLLEDXHHU  
NBVVLJZUBDRFAMARMRKBETSGGKLSAYDFWLVTXMIKNUYCRUYDRVNNSRDOJINFVCKAQ CRLQV  
SURRZQXALZONTZHRRQNPPZOMSXE OUANRYUXEKYKAYYCLGRKYIEDRKNHJKDMSTDRVYIECM  
MECMHVGHNWCFOFZPFHBYNOJODNRTDNRTDHHICQYUFEYRFJSWXIMLZDSMNQBQRUHRXPBVX  
QOARIGLANWHNRQJRTNMGP PRTCPEC DIWPMMJMYMEQPQALGARVWADN WJHMEA

## Beaufort Cipher

<http://practicalcryptography.com/ciphers/polyalphabetic-substitution-category/beaufort/>

### Plaintext:

YURUYENAMELELERUSTUNDEYERYEROTOMOBILLASTIGIIZLERIUZANANASFALTBUNLARINHEPSI  
MEVCUDIYETLERINDENMEMNUNGORUNUYORLARDIHERSEYHERSEYIOLDUGUGIBIKABULETMEK  
TEYDISUHALDEBANADAYAPACAKBASKABIRSEYKALMIYORDUTAMBUSIRADAYANIMDANHIZLAB  
IROTOMOBILGECTIBASIMICEVIRIPBAKTIGIMZAMANCAMINARKASINDAKICEHREYITANIDIGIMIZA  
NNETTIMNITEKIMARABABESONADIMGITTIKTENSORRADURDUKAPISIACILDIMEKTEPARKADASLA  
RIMDANHAMDIBASINIUZATMISBENICAGIRIYORDUSOKULDUMNEREYEGIDIYORSUNDIYESORDUHI  
CGEZINIYORUMGELBIZEGIDELIMCEVABIMIBEKLEMEDENBANAYANINDAYERACTIYOLDAAANLATT  
IGINAGORECALISTIGISIRKETINBAZIFABRIKALARINIDOLASMAKTANGELIYORDUGELECEGIMIEVE  
TELGRAFLABILDIRMISTIMHERHALDEHAZIRLIKYAPMISLARDIRYOKSASENIDAVETETMEYECESAR  
ETEDEMEZDIMDEDIGULDUMSIKSIKGORUSTUGUMHAMDIYIBANKADANAYRILDIGIMDANBERIGOR  
MEMISTIMMAKINEVESAIREKOMISYONCULUGUYAPANAYNIZAMANDAORMANVEKERESTEISLERIY  
LEUGRASANBIRSIRKETTEMUDURMUAVINIOLDUGUNUVEOLDUKCAIYIBIRPARAALDIGINIBILİYOR  
DUMISSIZZAMANIMDAKENDISINEMURACAATETMEYISIMDEHEMENHEMENBUNUNICINDIISBULM  
ASINIRICAETMEYEDEGILDEPARAYARDIMIYAPMASINIISTEMEYEGELDIMZANNEDERDIYECEKINMI  
STIMHEPBANKADAMISINDIYESORDUHA YIRAYRILDIMDEDIMHAYRETETTINEREYEGIRDINISTEME  
YEISTEMEYECEVAPVERDIMACIKTAYIMBENIBASTANASAGIBIRSUZDUKILIKKIYAFETIMEBAKTIEVI  
NEDAVETETTIGINEPISMANOLMAMISOLMALIKIELINIDOSTCABIRTEBESSUMLEOMZUMAVURARAK  
13BUAKSAMKONUSUPBIRCAREBULURUZALDIRMADEDIHALINDENMEMNUNVEKENDINDENEMING  
ORUNUYORDUDEMEEKARTIKTANIDIKLARAYARDIMLUKSUNUBILEYAPACAKHALEGELMISTIGIPTA  
ETTIMKUCUKFAKATSIRINBIREVDEOTURUYORDUBIRAZCIRKINFAKATCANAYAKINBIRKARISIVAR  
DIHICCEKINMEDENYANIMDAOPUSTULERHAMDIBENIYALNIZBIRAKARAKYIKANMAYAGITTIBENI  
KARISINATANITMADIGIHCINNEYAPACAGIMIBILMEDENMISAFIRODASININORTASINDADIKILIPKAL  
DIMKARISIDAKAPININYANINDADURUYORVEBELLIETMEDENBENISUZUYORDUBIRMUDDETDUSU  
NDUGALIBAZIHNINDENBUYURUNOTURUNDEMEKGECTIFAKATSONRABUNALUZUMGORMEYEREK  
YAVASCADISARISUZULDUHERZAMANIHMALKAROLMAYANHATTABUGIBIKAIDELEREFZLACADI  
KKATEDENVEHAYATTAKIMUVAFFAKIYETININBIRKISMINIDABUDIKKATINEBORCLUOLANHAMDI  
NINBENIBOYLEORTADABIRAKIVERMESININSEBEBINIDUSUNDUMMUHIMCEMEVKILERECECENAD  
AMLARINESASLIADETLERINDENBIRIDEGALIBAESKIVEKENDILERINDENGERIKALMISARKADASLA  
RINAKARSIGOSTERDIKLERIBUBIRAZDASUURLUDALGINLIKTISONRAOZAMANAKADARSIZDIYEHIT  
APETTIKLERIDOSTLARINABIRDENBIREAHBAPCASENDIYECEKKADARALCAKGONULLUEBABACA  
NOLUVERMEKKARSISINDAKININSOZUNUYARIDAKESIPRASTGELEMANASIZBIRSEYSORMAKVEBU  
NUGAYETTABIOLARAKHATTACOKKERESEFKATVEMERHAMETDOLUBIRTEBESSUMLEBIRLIKTEY  
APMAKBUTUNBUNLARLASONGUNLERDEOKADARCOKKARSILASMISTIMKIHAMDIYEKIZMAKVEG  
UCENMEKAKLIMABILEGELMEDISADECEKALKIPKIMSEYEHABERVERMEDENGITMEYIVEBUSIKINTI  
LIVAZIYETTENKURTULMAYIDUSUNDUMFAKATBUSIRADABEYAZONLUKLUBASORTULUYASLIBIR  
KOYLUKADINYAMALISIYAHCORAPLARIYLAHICSESCIKARMADANKAHVEGETIRDIUZERISIRMACIC  
EKLILACIVERTKOLTUKLARDANBIRINEOTURDUMETRAFIMABAKTIMDUVARLARDAAILEVEARTIST  
FOTOGRAFLARIKENARDAHANIMAAITOLDUGUANLASILANBIRKITAPRAFINDAYIRMIBESKURUSLU  
KBIRKACROMANLAMODAMECMUALARIVARDIBIRSIGARAISKEMLESININALTINADIZILMISBULUN  
ANBIRKACALBUMMISAFIRLERTARAFINDANBIRHAYLIHIRPALANMISABENZIYORDUNEYAPACAGI  
MIBILMEDIGIMICINONLARDANBIRINIALDIMDAHAACMADANHAMDIKAPIDAGORUNDUBIRELIYLE

### Ciphertext:

JGVJKDNMREWVBZRNITJVEWOZRJWVPPTOYCAWPMLPZUEVJWWVVOIAZDVHIIHDXOZSQXHJEQB  
DLUVWDFKJFZCIKXDJEQFDNAZWUGZXUQGGZJKTJBDRESFZRPWOWEQIIFATPJJCNUECAXALJXDHA  
ZYOWOAAAPGFDXEWLDVHXMFISAKDYGAUTIGSVLEJQMSWZCYMFNHRHNIEMIEAODVZOJDVAS  
NSIGSVPPTOYCAWUIBPZZMLAVSKZNZJEOHHQTV CZONDWHNKDWZNMMYHIEQFHQEBE AJFAOAZ  
VFZUERAIAZQEOHERVZHITAVAVDHHZILUUAJVBSTKAXHIQQTNVDFNJJJYHLELAHYESFZOITPDL  
MMYHXMLXHJERFHNFDWESLDQZNEJJHHA VQGWZVGHUEMAJMVAOPMCJXEGAQE QWOZCZXE FU

QISQFZCILUQXSWAFUIEAUSOPRNOGZXGSNZCZXISAVYIIIIGSAVHDQBZWDXIQHNNMFIUSZAIJWVD  
GOSOPXEAMQXHHTVCZNMXUQWKDXZITVCZIEMYDHEQHHEBEYIGJETIWAVVVZXYSSIPOMTPHNGZ  
XZCYMFNUISEFWGVWZWRZPDPGMICPMCAWXEMWZITVWAWVWIWIXIISVSAXCMOWZIBDRESV  
FUXIMLEUSJDNDHIKWDCIBEPVZPDXIREIXERFDXEXOWXSRQZQUVYBMVJQOGGJWAAAAAJSLDV  
XAJDVHCVVXESGVWEAZCEQSGPRVWAVQOSARIXSZZNDIMVRDQYRAPCYQGNPSXOJAXDVHCVJ  
HOMQFHMVRIUFITEQWUKEZIBZRZCBZOBJMLIUZEMQZJCZPOWAFJNJAJIMSZVUWXSXOUGRZUWX  
STGHSOVHZJXDRHABAABSZVHZPEFUQXSRAPIEEJHOMQAVXMTEUXELAUWAJRHYMDPDHAZKZIE  
RFDTIREUTIREUZSQOUSKVVESELHNPADQZNEMAFAIKWDCIAEBSBAESAVDKHJJVWZCMOWHIEQA  
ZITZWDCIXEWXERJHNZZFDJJVKDYITAULOELPZOFZTGAZTIEAAVQZNJVKDIYMFNTMFAQAOMAWX  
ERFDXERBHCVPDHTVVDJIFEBSVAAUSUKEVWOZAPHIREJWKZNLRLZRESADGGZQTDKZOLZVZZM  
LPHNMLIBSLVRPGNAOXSBBVYXSODDDHEREGACKADFEQEERARZPDHTVCZNIOAPOMQUWOMRAPM  
BRIWSCVEWSZVFTITBIGSVKEGWULOVPIPWIGADNNJMMIXZSDYPAATUUGUJTGSGVBIQWLJXNJSEI  
WXEMWHXIAAAAABVVEWZREVNSQNDQIQFZNJZVDOEQCTJSQOJMVAAOEWAZYHJTVYOAZVFZQBD  
RHCMMFZOBJYPGZJHZPIFISAKDYAABZCDPAVQOSGVTOAIKPZOCJGNQHDYHHUVVRZNLVRDFJZUO  
GVJKTJJJHZJMEGZJCVVCACDPFAZDKHQEQHZJCDRZIEIIQXEWAFYITAUIAEUCMQAVXMPTNITJX  
DJFDWESLZVZCMSVZBLVRHQMMIXCETIUOMFIBSTKAGWZVYHJELAUATDVZHADFZUEVGZNZZKH  
LMBIBSAVHZPAZFDNAVQHVMUEAUVVZNYMPHIEQFHXETAWSXTIWXYHJELAEACDTZNEQKH  
NEQFHXSOMOJMVIEGWBSADHAZFDNLZVZISEOJMVAAOGSVROEXIKFNISQFNUMSAGANVBUSZAEUZ  
SFOQGZPPNJSQFDOITCDYTVDHQMKQTNVDHNNMSOIGAXUQOIFEQWCFIMAUBIESUDRZISEOWXS  
WEQBMRIUSFRIWQMMUWOMFIUTMKPHZSXAGSCDAEWBZRDVMEXHYYMAAXQMKEEWZIEAAODP  
OACVWNFMYDHEFEOSZVVGSVTAPOEQAEALJFZQCDPZNICUQYBJUWAZWIVXEQUZIQAGMOSE  
TJTDFHZEMIXSRZRVWUVVZNUZHDZEQAEGUJVEGAROASABEVWRTAWVWZCDYIQIEAASIQSZZQH  
IBVIEWTSEQSZAEUZEMAEGDXZZMZQXSRYDNJVXDJEQFDNGZRZQMSWZIMMYHXMLXHJEQIX  
AVLABMUKEQXETXDJECOGSVDJEAUJOQPSAIWUEQXZQTVQTNVDUIAADVHQMAIQIEEFZCIWAOA  
XZPOSCSEQSJPQOPMMAUALVREWZCAQWMWHHLKDQDNJVKDYITYHXMMIWMYMTCTNSSXNFICIG  
AKDVTSPSIEQOITYHJUVQZNJDYZNEQQTBSQOJAVVFHQILASJMLPBWBZWHNMLAIZEMQDCUPRVAC  
IEGGZJCHCIKPHZEVUWAVDYAATKIFMCTEQWUZDXATIEVWVWVWTAUWGLVROWLZQPGASEGS  
VSAXHIFISOMTHNHSQHNNBDRWAUPVBGZSEQXIPYHXMMGTQCDRPSBDQVSUKAVQEWIVXEFEXS  
NRIXFIXOFWZREXACSAVALVXDUISWDXELIEWKZYHPCVTXSALEJWFDHJZRZRVWJZVBSTREJSRZ  
HNIETAUHESAMANVKDHTZVXGVKOWOMFAEGUJVEGAYIXATCOPSVDFHZIFIIMZSOXPSCIPMVKO  
WGODQWSLVRXMOSOXAJVVJAADXZIEFIAYYMISPMMAJPMWAFIILGZQMMWHXMQYHTRZCDHEM  
FZGNZRZIEMWHYEBEXPESIFSRZROQYSPNQBDREAZCAQSZZUOGVAOVWTMICSADHHQTVWEGRD  
RWAVAIHSBZNDKAPHHPTUVDDWAVVYDNMMFHTMQAVAMVPTPJJCNAZSIPSBVGVSVTAOAX  
MICSZAIJSVRAGWUTOQGUSOXZEMYHYVPWHNBDWTXMREFOSDXHJIEIIQXECAQIEIXIQAELYDOBZ  
QZNEQIWHEQIESNVXVSUCOWGZDVGSVTIFABCOVOELICSVSEQHMMICSZAIUZEMBHCBBVZJXDXH  
NAVQHZIQJZCYMFNNIFISAKDCZOECAWOIAABSAVGZNYQXHJJDVGSVVVZABAAVXMWIIHYADFHN  
FDWESCDTZXMXUQGZAOGSVZXZCBZ

## Porta Cipher

<http://practicalcryptography.com/ciphers/polyalphabetic-substitution-category/porta/>

### Plaintext:

SACLARINITARIYOROTEKIYLEACIKYAKALIBEYAZFRENKGOMLEGININDUGMELERINIILIKLIYORD  
UENASILSINBAKALIMANLATDIYESORDUHCISOYLEDIMYABANARASTGELDIGINDENMEMNUNGOR  
UNUYORDUIHTIMALERISTIGIMERTEBELERIGOSTEREBILDIGINEYAHUTDABENIMHALIMIDUSUNER  
EKBENIMGIBIOLMADIGINASEVINIYORDUNEDENSEHAYATTABIRMUDDETBERABERYURUDUGUMU  
ZINSANLARINBASINABIRFELAKETGELDIGINIHERHANGIBIRSIKINTIYADUSTUKLERINIGORUNCEBU  
BELALARIKENDIBASIMIZDANSAVMISGIBIFERAHLIKDUYARVEOZAVALLILARASANKIBIZEDEGELE  
BILECEKBELALARIKENDIUSTLERINECEKTIKLERIICINALAKAVEMERHAMETGOSTERMEKISTERIZH  
AMDIDEBANAAYNIHISLERLEHITAPEDERGIBIYDIYAZIFILANYAZIYORMUSUNDEDIARASIRASIIRHI  
KAYEBIRFAYDASIOLUYORMUBARIGENEGULDUMOBIRAKBOYLESEYLERICANIMDIYEREKPRATIK  
HAYATINMUVAFFAKIYETLERINDENEDEBIYATGIBIBOSSEYLERINMEKTEPSIRALARINDANSONRAA  
NCAKZARARLIOLABILECEGINDENBAHSETTIKENDISINECEVAPVERILEBILECEGINIMUNAKASAEDIL  
EBILECEGINIASLAAKLINAGETIRMEDENKUCUKBIRCOCUGANASIHATVERIRGIBIKONUSUYORVEBU  
CESARETIHAYATTAKIMUVAFFAKIYETINDENALDIGINITAVIRLARIYLAGOSTERMEKTENDEHICCEKI  
NMIYORDUYUZUMDEPEKAHMAKCAOLDUGUNUADAMAKILLIHISSETTIGIMBIRGULUMSEMEILEHA  
YRANHAYRANONABAKIYORVEBUHALIMLEKENDISINEDAHACOKCESARETVERIYORDUMYARINSA  
BAHBANAUGRADIYORDUBAKALIMBIRSEYLERDUSUNURUZSENZEKICOCUKSUNDURBILIRIMPEKC  
ALISKANDEGILDINAMABUNUNEHMMIYETIYOKHAYATVEZARURETLERINSANABIRCOKSEYLERO  
GREtirunUTMAERKENDENGELBENIGORBUNLARISOYLERKENMEKTEPTEKENDISININDEILERIGEL  
ENTEMBELLERDENOLDUGUNUTAMAMENUNUTMUSABENZIYORDUYAHUTDABUNUBURADAYUZU  
NEVURAMAYACAGIMDANEMINOLDUGUICINPERVAZSIZCAKONUSUYORDUYERINDENKALKARGIB  
IBIRHAREKETYAPTIHEMENDOGRULDUMVEELIMIUZATARAKBANAMUSADEDEDIMNEDENCANIM  
DAHAERKENAMASENBILIRSINBENIYEMEGECAIRDIGINIUNUTMUSTUMBUANDAHATIRLADIMFAK  
ATOTAMAMENUNUTMUSGORUNUYORDUKAPIYAKADARGELDIMSAPKAMIALIRKENHANIMEFENDI  
YEHURMETLERDEDEDIMOLUROLURSENYARINBANAUGRAUZULMECANIMDIYEREKSIRTIMIOKSADID  
ISARICIKTIGIMZAMANORTALIKADAMAKILLIKARARMISSOKAKLAMBALARIYANMISTIDERINBIRN  
EFESALDIMHAVABIRAZTOZLAKARISIKDAOLSABANAFEVKALADETEMIZVEFERAHLATICIGELDIAG  
IRAGIRYURUDUMERTESIGUNOGLEYEDOGRUHAMDININSIRKETINEGITTIMHALBUKIDUNAKSAMEV  
INDENCIKTIGIMSIRADABUNAHICNIYETIMYOKTUZATENSARIHBIRVAITTEDEBULUNMAMISTIBAKA  
LIMBIRSEYDUSUNURUZBIRSEYYAPARIZGIBIHERMURACAATETTIGIMHAYIRSAHIBINDENDINLEME  
YEALISTIGIMBEYLIKSOZLERLEBENIUGURLAMISTIBUNARAGMENGITTIMICIMDEBIRUMITTENZIYA  
DENEDENSEKENDIMITEZLILEDILMISGORMEKARZUSUVARDIADETANEFSIMEDUNAKSAMSESCIKA  
RMADANDINLEDINVEONUNSANAKARSIVELINIMETTAVRITAKINMASINARAZIOLDUNYAHAYDIBA  
KALIMBUNUSONUNAKADARGOTURMELISENBUNALAYIKSINDEMEKISTIYORDUMHADEMEBENIEV  
VELAKUCUKBIRODAYAALIPBEKLETTIHAMDININYANINAGIRDIGIMZAMANYUZUMDEGENEODUN  
KUAHMAKCATEBESSUMUNBULUNDUGUNUHISSETTIMVEKENDIMEDAHACOKKIZDIMHAMDIONUN  
DESERILIDURANBIRSURUKAGITVEICERIGIRIPCIKANBIRSURUMEMURLAMESGULDUBANABASIYL  
ABIRISKEMLEGOSTERDIVEISINEBAKMAKTADEVAMETTIELINISIKMAYACESARETEDEMEDENISKE  
MLEYEILISTIMSIMDIONUNKARSISINDAHAKIKATENAMIRIMHATTAVELINIMETIMMISGIBIBIRSASKI  
NLIKDUYUYORVEBUKADARALCALANBENLIGIMEBUMUAMELEYICIDDENLAYIKGORUYORDUMDU  
NAKSAMBENIYOLDAOTOMOBILINEALANMEKTEPARKADASIMLA

### Ciphertext:

MXXUPLQDQKPLOBGIMAXUQCNXTZQTJTQXTRQXFXEOCXHUOFORXQQEXHWKOVTRXHQEXORSS  
UXFIHYLTHTIQUDOHYVTPROWVENTANQCTMIHYLWOVIGCNXWSUCPUTDVIPMAQZUSOZSFZTHSO  
UEFHZEJLLBFEJZFONJQVPRXHQJEOZSUNCAXYZUTLOQGJEXLOWRNWOQQETFTRMKSTUOFRONTV  
QVXWBIMETLXUWNLOSQQXXIRWVZXZODVJTCODQCMLWKFNSEXHZQPFTJLWQOLWMZSXAYZIPU  
XHDLCBWKOLOBGSFJPHRXJRLUTIQEPUOHNNTQOLPTRWSORLONOJQPHZSWRCMOUQEEOFXYL  
DABUTNCOHSOFCBHZZXFUXVVUPLOUZESOUXKROOGNVEDTCWQJVOUSNNCTNVQTSBFXJMTIGX  
AWNROVVIPMTDSRQGOYNVXROWRNXVOSXTRTVVIXQXDYRFMAVZIXHXZZTEOQVZIXOVSWFN



TQXANOXLRVVTAZEKKTLSOSRDAXHQDWTSNQZTUTDVWJHORQJNXLVZQXATFZZTLZSWRJWOBV  
DXYOVVEJTGSDFCSBIMESXWSVIPMOHVJXOLRQTFFXYQIUTFNVJXIRKDFCSBYVIXZXDZPFRWKUF  
QOLXSXMFROKNJRXHQYPHOWYRJXLOSGCTASSQPFTJQEBCXNOPQOBZKNXLSFZTHXNZXXFTJO  
RQOUEKJTFROJRLSXULNAMOHVUPLODYWLMIDJWPHVXSDPLTHTRMRTYQUTVXQQESXHYVQDX  
AJQTTHWSKRLXVOAWACXHQU TUOVZYTZODQVFHTUVJPXWSTNQOROXNVOHSVJNTTUTRLTZOL  
RCSXNZEZBVKSXXLVEXLVTHXKRWTALZIXLZSWRZIHKKLJILLZXFVXIVITAORVCPAAXSROBCXN  
OPQOBZKXHWOFWNWOQQEXATLQINTLSDUPZIILNCSXULNLWXRQYRXQSFVXFIHYLJBGKUJTJXU  
VQOTQZVFNBWQBMEFTWXUWZORVQQXMMOLKXZOWWRCZBVMVDXSOQUTNTBJWLNTBJWLIHX  
WWZOF EjMTUBRVUXSROSNLWOIQUETWTRVYMQVOKWCXALZIXFIHYLOFTHQEDTUXXPHTKOIPW  
OBGISBUXSWNOSYQIDXFVZISBMKFLCBGIZEKXQSFVXFIHYLOFTHQEDTUXXPHTKOIPW  
WSFWOTUKFLLXNOUVVFXJQCMQNXDWECCVIFLXJTNCOHIVEPUOHXFZMXBTNCIZHZKXLBDMK  
OTXHSNLWXDONNUXDQPMLUKFUPLOIGCNXLUZEQXQJZGEXQOFZXMODOESXOVZIXZXVZEESY  
ZUNXLNZEMRWKOLLBAXUWOXHKFLESBIVXTHGSDFCWBBVQFAWXWLLBUKJWSTFKELLXCKJWO  
TFXXWVOSNVETSODGUSBZKQYXHJOJMPGMSEYPQIDMJFFIHYLJXLSFZTHQXTTPLZSWRQOLRVITQ  
XJDWAAORZVTHWEOIFRWKUMTXRSURFGTJVIPQUXFWOBMXVZTWXNQVLXWOFYPHOWYWWTX  
HSNLTSXKNLUOVQIDOHYZEXFXWZPTVTQQISOZSFRFHBJULDABWWLPHWXPWEOLVVZXSYSWE  
IAXUWOXHKFLESBIOFCBHKDFCWBUBVGXFTUVZPLZOTZXSMXHTPSOXTXRCQXDPWLOSONNLWOBZ  
QFLSOLUTLWOYROIWKJFNBLIZEJTL SFXPHTKOIPBGKTVTVTDQVSOFOJNZMOHLROOIUKWSOWSK  
WCOVSSKXZOWEWOTHEJKPROUVZPSTUQUNOQXJWCISOIKFZTQVVVQTRXJRJTHWQJEOWOJRLUO  
HFNUXMXTZXSNXAWQOLXKMGXSWCOMSSZPIRIVXPHTPZMZTRXYNEXSSEMTYXHVQNTASXR  
VXRNQWVOLXORCFBHMZFSXHLNDOZKFFVRXBZZMZLKPWOWODQEDOLUZKXHXQQKEOSRVUQB  
QSYLLTQIVVTCODYNLVOULRVOSIQIPWTYMEPNOZFRJXASUCMQAKEWEXHIVIXNUSJMPAJZZTU  
BVMEOTSSKKXUTUVUXSUSJJTFWKKLLBLKEXXLMODCPJTHQDVOUSPNCBHVYPTAOLKXZOWPW  
JOLIVQXUODYNLWODTNOXFOVUXMASOROUXBTRZMICTNCRXYZEXBZKJUPSOILRQBHXJWVSXD  
OREAOWQYXSWOWRCBSSLKTHGSDWSXHOYNLMXUZESOSSLNKROVZZXRSSKPMLSOSWCGBIMM  
PLWSVZTATDZODOSOYLLTQIVVDXMZQTPLSXYWLWODTNSOHLZFLBHIVEPQTHKRGXRSFROXAJV  
MCOAXSRLSTIQEPLTCQFNWBDDWWTFNQXPQTVQVQBHKKFLBHXSWSTLQGGKFLSOTRDXHYMEPR  
TBQTDQEPZOHYRVOSCVPVPHFKELOWXQZETIWKFTFTNWVTRTAOWNDMBWMEQBRKFZFZBDMQX  
MMOLKXSCOSNLWOWZZPNTZGTZOGNQVWTSNQFLBHNZJTLOVQZFLTDWRCMBHMTPZOJANXXVX  
HQPXLOFXRZTHYQIDBLKUNOBLVVVTMZKTZFUTDVXPMOBTWQOLSKTTSROOFDAXHYRGXOIQUET  
UTUWZATNZMPSXJLRTRODQJXQSDWRXMXJNEXWOUNSXHSKTTSRODNXROILROMOWYRMHB  
DSWCMOIQUESTNXSRZTAOFWOOLSUQPAAXANNOHSUNEOSWQJVOUSWRCMTISRRLROUYLJBFEJMT  
UBUVZPLTVXWNTHYZENOSUNQBSKVVTXBXQYXWWOFUPFOUOFCBFEJZFSWKFWZMTWWNLOF  
ETZPIAEUFQORSFNPRTDUNZAXFVIZTWXKRORT

<http://practicalcryptography.com/ciphers/polyalphabetic-substitution-category/autokey/>

**Plaintext:**

TREATS OF THE PLACE WHERE OLIVER TWIST WAS BORN AND OF THE CIRCUMSTANCES ATTENDING HIS BIRTH AMONG OTHER PUBLIC BUILDINGS IN A CERTAIN TOWN WHICH FOR MANY REASONS IT WILL BE PROUD TO REFRAIN FROM MENTIONING AND TO WHICH I WILL ASSIGN NO FICTITIOUS NAME THERE IS ONE ANCIENTLY COMMON TO MOST TOWNS GREAT OR SMALL TO WIT A WORKHOUSE AND IN THIS WORKHOUSE WAS BORN ON A DAY AND DATE WHICH I NEED NOT TROUBLE MYSELF TO REPEAT IN AS MUCH AS IT CAN BE OF NO POSSIBLE CONSEQUENCE TO THE READER IN THIS STAGE OF THE BUSINESS AT ALL EVENTS THE ITEM OF MORTALITY WHOSE NAME IS PREFIXED TO THE HEAD OF THIS CHAPTER FOR A LONG TIME AFTER IT WAS USHERED INTO THIS WORLD OF SORROW AND TROUBLE BY THE PARISH SURGEON IT REMAINED A MATTER OF CONSIDERABLE DOUBT WHETHER THE CHILD WOULD SURVIVE TO BEAR ANY NAME AT ALL IN WHICH CASE IT IS SOMEWHAT MORE THAN PROBABLE THAT THESE MEMOIRS WOULD NEVER HAVE APPEARED OR IF THEY HAD THAT BEING COMPRISED WITHIN A COUPLE OF PAGES THEY WOULD HAVE POSSESSED THE INESTIMABLE MERIT OF BEING THE MOST CONCISE AND FAITHFUL SPECIMEN OF BIOGRAPHY EXTANT IN THE LITERATURE OF ANY AGE OR COUNTRY ALTHOUGH I AM NOT DISPOSED TO MAINTAIN THAT THE BEING BORN IN A WORKHOUSE IS IN ITSELF THE MOST FORTUNATE AND ENVIABLE CIRCUMSTANCE THAT CAN POSSIBLY BEFALL A HUMAN BEING I DO MEANTO SAY THAT IN THIS PARTICULAR INSTANCE IT WAS THE BEST THING FOR OLIVER TWIST THAT COULD BY POSSIBILITY HAVE OCCURRED THE FACT IS THAT THERE WAS A CONSIDERABLE DIFFICULTY IN INDUCING OLIVER TO TAKE UPON HIMSELF THE OFFICE OF RESPIRATION AT A TROUBLESOME PRACTICE BUT ONE WHICH CUSTOM HAS RENDERED NECESSARY TOO EASY EXISTENCE AND FOR SOME TIME HE LAY GASPING ON A LITTLE FLOCKMATTRESS RATHER UNEQUALLY POISED BETWEEN THIS WORLD AND THE NEXT THE BALANCE BEING DECIDEDLY IN FAVOUR OF THE LATTER NOW IF DURING THIS BRIEF PERIOD OLIVER HAD BEEN SURROUNDED BY CAREFUL GRANDMOTHERS ANXIOUS AUNTSEXPERIENCED NURSES AND DOCTORS OF PROFOUND WISDOM HE WOULD MOST INEVITABLY AND INDUBITABLY HAVE BEEN KILLED IN NOT IME THERE BEING NOBODY BY HOW EVER BUT A PAUPER OLD WOMAN WHO WAS RENDERED RATHER MISTY BY AN UNWONTED ALLOWANCE OF BEER AND A PARISH SURGEON WHO DID SUCH MATTERS BY CONTRACT OLIVER AND NATURE FOUGHT OUT THE POINT BETWEEN THEM THE RESULT WAS THAT AFTER A FEW STRUGGLES OLIVER BREATHED SNEEZED AND PROCEEDED TO ADVERTISE TO THE INMATES OF THE WORKHOUSE THE FACT OF A NEW BURDEN HAVING BEEN IMPOSED UPON THE PARISH BY SETTING UP A SLOUD ACRY AS COULD REASONABLY HAVE BEEN EXPECTED FROM A MALE INFANT WHO HAD NOT BEEN POSSESSED OF THAT VERY USEFUL APPENDAGE A VOICE FOR A MUCH LONGER SPACE OF TIME THAN THREE MINUTES AND A QUARTER AS OLIVER GAVE THIS FIRST PROOF OF THE FREE AND PROPER ACTION OF HIS LUNGSTHE PATCHWORK COVERLET WHICH WAS CARELESSLY FLUNG OVER THE IRON BEDSTEAD RUSTLED THE PALE FACE OF A YOUNG WOMAN WAS RAISED FEEBLY FROM THE PILLOW AND A FAINT VOICE IMPERFECTLY ARTICULATED THE WORDS LET ME SEE THE CHILD AND DIETHE SURGEON HAD BEEN SITTING WITH HIS FACE TURNED TOWARDS THE FIRE GIVING THE PALMS OF HIS HANDS A WARM AND A RUBALTERNATELY AS THE YOUNG WOMAN SPOKE HE ROSE AND ADVANCING TO THE BEDSHE SAID WITH MORE KINDNESS THAN MIGHT HAVE BEEN EXPECTED OF HIM OH YOU MUST NOT TALK ABOUT DYING YET LOR BLESS HER DEAR HEART NO INTERPOSED THEN NURSE HASTILY DEPOSITING IN HER POCKET A GREEN GLASS BOTTLE THE CONTENTS OF WHICH SHE HAD BEEN TASTING IN A CORNER WITH EVIDENT SATISFACTION LOR BLESS HER DEAR HEART WHEN SHE HAS LIVED AS LONG AS I HAVE SIR AND HAD THIRTEEN CHILDREN OF HER OWN AND ALL ONE MDEAD EXCEPT TWO AND THEM IN THE WURKUS WITH ME SHELL KNOW BETTER THAN TO TAKE ON IN THAT WAY BLESS HER DEAR HEART THINK WHAT IT IS TO BE A MOTHER THERE SADE ARYOUNG LAMB DO APPARENTLY THIS CONSOLATORY PERSPECTIVE OF A MOTHERS PROSPECTS FAILED IN PRODUCING ITS DUE EFFECT THE PATIENTS SHOOK HER HEAD AND STRETCHED OUT HER HAND TOWARDS THE CHILD THE SURGEON DEPOSED IT IN HER ARMS SHE IMPRINTED HER COLD WHITE LIP PASSIONATELY ON ITS FOREHEAD PASSED HER HANDS OVER HER FACE GAZED WILDLY ROUND SHUDDERED FELL BACK AND DIED THEY CHAFED HER BREASTS AND HANDS AND TEMPLES BUT THE BLOOD HAD STOPPED FOREVER THEY TALKED OF HOPE AND COMFORT THEY HAD BEEN STRANGERS TOO LONG ITS ALL OVER MR STINGUMMY SAID THE SURGEON AT LAST AH POOR DEAR SO IT IS SAID THEN NURSE PICKING UP THE CORK OF THE GREEN BOTTLE WHICH HAD FALLEN OUT ON THE PILLOW AS SHE STOOPED TO TAKE UP THE CHILD POOR DEAR YOU NEEDNT MINDSEN



DINGUPTOMEIFTHECHILDCRIESNURSESAIDTHESURGEONPUTTINGONHISGLOVESWITHGREATDELIBERATIONITSVERYLIKELYITWILLBETROUBLESOME GIVEIT A LITTLE GRUEL IF IT IS HE PUT ON HIS SHAT AND PAUSING BY THE BEDSIDE ON HIS WAY TO THE DOOR ADDED SHE WAS A GOOD LOOKING GIRL TOO WHEREDID SHE COME FROM?  
SHE WAS BROUGHT HERE LAST NIGHT REPLIED THE OLD WOMAN BY THE OVERSEERS ORDERS SHE WAS FOUND LYING IN THE STREETS SHE HAD WALKED SOME DISTANCE FOR HER SHOES WERE WORN TO PIECES BUT WHERE SHE CAME FROM OR WHERE SHE WAS GOING NOBODY KNOWS THE SURGEON LEANED OVER THE BODY AND RAISED THE LEFT HAND THE OLD STORY HE SAID SHAKING HIS HEAD NOW WEDDING RING IS EEAH GOOD NIGHT THE MEDICAL GENTLEMAN WALKED AWAY TO DINNER AND THEN NURSE HAVING ONCE MORE APPLIED HERSELF TO THE GREEN BOTTLES AT DOWN ON A LOW CHAIR BEFORE THE FIRE AND PROCEEDED TO DRESS THE INFANT WHAT AN EXCELLENT EXAMPLE OF THE POWER OF DRESS YOUNG OLIVERTWIST WAS WRAPPED IN THE BLANKET WHICH HAD HITHERTO FORMED HIS ONLY COVERING HE MIGHT HAVE BEEN THE CHILD OF AN OBLE MAN OR A BEGGAR IT WOULD HAVE BEEN HARD FOR THE HAUGHTIEST STRANGER TO HAVE ASSIGNED HIM HIS PROPER STATION IN SOCIETY BUT NOW THAT HE WAS ENVELOPED IN THE OLD CALICO ROBES WHICH HAD GROWN YELLOW IN THE SAME SERVICE HE WAS BADGED AND TICKETED AND FELL INTO HIS PLACE AT ONCE A PARISH CHILD THE ORPHAN OF A WORKHOUSE THE HUMBLE HALF STARVED DRUD GET TO BE CUFFED AND BUFFETED THROUGH THE WORLD DESPISED BY ALL AND PITIED BY NONE OLIVER CRIED LUSTILY IF HE COULD HAVE KNOWN THAT HE WAS AN ORPHAN LEFT TO THE TENDER MERCIES OF CHURCH WARDENS AND OVERSEERS PERHAPS HE WOULD HAVE CRIED THE LOUDER

Ciphertext:

HCMVXJHWXHXHZFVLAWPRGSHPZVVHHQNXNTOJGKJAFECWGHFRFWWVBQUBRPWQKTTGGRVIGZLVVJVXAPSNWEZVTTSEVIUSMTQOJWLKOAATQIPKJBNIPIXFPNEUBQDSKYUCUDFVMSBLJMTOWYDJXLZFOFRIKIUISKTWEJWFMURSKWAZMAZIBQBBCHVFAWSPTNHAOQRYNGXQIGVHNWWLVTUSNZRRQMLVRVEVUWRRTYAKSZFZLVCYAGGMCIBKZKSWGJXJQAEZKGIELPCNSAOQGKURCFXHVVEBKRPQGQVGHGVGVJOFBRRLADGAREJKLCAMJLMFUWGXVRHPEXDMMFVJFMJIAJTHZRPWMNKUAKUNEHNTMHHNBQSGXVPASUGVTPUWSAUIJIXUGVXOWLVRZTKMJAGTNMGXMHKFIXBUITMSBNPDWVXNEDXCIVMWFVJUHVFOQUHPPHZAXLWTSACRQJQPTUXTBEIKXOWVJALIVQMTWBWTMOGTPFSUKIXSNLMMDMTBTWLAAARWXAUXFXKQFPCKSLGBGFCUCBSBUKFKUOOXSMNIPTBPBZLHUIOWVFCXIANQGVHMMIGXHRAVFHRJWIGFNTTHHFUCEAKSNIXNALXJLZEKAQBTOVQFPTYWNFWMVVTBZRADENRNLXMNPHTNPPWZMKAKSKSUXEZSHYSNLTAMBGVHIAOAVHIAUELXZEFXTSAVEAAITUFAJYCKNZZEGWEVVEDSVIWXKSPFWALYABHBUGVPQXEIOUSPLBZBMQWKHBXYEQTJPRIGYWEEAGNSHFWJYARZSZWHSVLLWARHLAMUNFDXUQRJESRFVQGUYIUBYMJSZQALGOAFNSMTUIZLAILHCXWC SHJUSTFFQPMKOTPURMKMHREQGXEECKIFFTHPEUJOEAOARHIAOFGAFSGSBHAHUALIECCLHLLDASMQMOUNBUTTBUXIEBGNFPVVVTBKFESUOQGVSZWHAXAWTSBAWQZXMMSDHMGFHVTHQEGZINEPRXQRDFQUBRPWQLAAGEEGWOLUIOAMTWNBNWJBLZMLYBLCZGVESURGVWCEEYGAOLILMOILXNKAQUJLRKQPM AEKRAMWNUXPXXEKMALJRYYHYWYOASIIHQNXKAWBUHNSDUADIDVJXZALGIIGMHAJUMVSFVBVWEFMPWYHCMBZXYEPTZGFROIVGFNTTHHZFGTGXTYDQPCYWSKVVTFRKDRXHZBVOVNDHNRMGHSYMBTWSQKBJCKWMUTWWRXADVRTKWIOLXJCGFAVSQFMRVBWMWPIXBBQUQGZBQTJUKKSZKEJVHAHGVWVNVAXGGUICTGMYOMSLCRZMSGHSQVSBPJHZESTIEIKHWA ILMOFPTVZH YEQTHVVQFEHTOESKTKLWJLNXXYRFYCFIIDPBQ SBOIHOXA EWABKSLJRKSHNRAMALRFXETUGFBPIA IHFGQKGPAAQQJDGM CETFOVYCOYMLVYOPBJUHFEVLWBZAOXBLNHFIQSIDPZDSUVLLWIVUSXSVS HFVUPSPDVHGSNGIESXXUKHRUEOGEMFMSNRVHMWXJRKA I KRIUVVEUIVNHUVSUTBUVCHIFFXCZCUKNGXBPDMORIXKQKGN TQQJAMIOPTIGDJYBUOLBNEFZPTVFMCLNFMMPIQSVYZXLURG VXXZQFXPRXPFWQEOMICZCWCYPQXVTRVJXRDLXLSDOYZDCIAFNLBZEJVHEDXYIUDILACSKIFNLXMNGYQWZYHADNNPCBBRGVOSEETRRVVHHUIOWVFQYUHWQOBQKUDLNGYEBRVSELSYEHBEZVGKOYLIEKUEHSONAYXTINZOXDIBGAF THERXOXAAQXUXYIENSXNEKNSTPAXMLRTFJPWKRZKCDXJIROGIJPCMVXYFUWNXLDHVN RHOVRCRHSVRVSEGZHKHIVZXFMPWMGATAIABRTAIOCWDOSQGV DOSZSGMVJFNGPPZRQIJIUMLRTIEZVVSQSWRLGECFXKYEOEBZLQYJMLAJLYYITAYUOSAUCMUVCQLJDJGOMZQRFLQVNVFMCLNZBQIGGIAUVQFEPFCSUNRAYXEUTHNWJVHIEHADHTWIFHSVGJLZEWJJKFULZJLJUHTJHOAVTEIRIIIFJFIOYHVCOZAGYDDNIIFXIIIOIHMTVFLKLEZBULXIEIAXTUMA EWEHUSFEMMEJULDZXYOSAMKZBHWVFXHUKVSKFJXHRIGVSPRUPTHXSEOHAQGYISNALS YCGLVOADRDEVRSIVGHRLZNL PWZKCYALWUSCCQPMFRMAPLGNSDVFGIILJHRBHUMLXLHUNZXAE OXMEREZJFYQYBLWMAUACWGDAVOE VWEMTPBKVSNEFJGWXE VAPVOLTWIAWVTIKRBHDMTJMOIPPFVVBNSLRMMFNSEPSUWZPAHDHKPIMTIULMEKEPKLTHTUHV CVZLSFBRJFSRUSLUXMAYEBMPUOONTJLBMWNGHMINNVGLHDEWLJXNMAQE

KZPZXNRFZSUHTEZOSKASDAEPSNZAIGBNOTVLOAEXPPNSMLPWOMGNAMAUAYLCWEUWGCCIHR  
UOVZAAFIQBTBVPRHXRLIOIBHVSPHWLLHURNMDPZREICAGKNREAZOTUMDKIXLNZBQIGGIADJJB  
QRVDVCYIZRBIFNSEXOUHUENYJBARHRTBXZPXDG YFCHWSYLVDVTEVMNKXEDWFXHKWSFYULL  
LNMKAPFDWIWDGWMCUAVAMEVWPRIKPUTOIGGRRWWOUETDWUVXVZRMLRVGBYAUUBUVXDL  
PCKTLIUTDTXMAZIFTKBXVRRYWKUIMELXUXNIWMFYSCMQGSLQKJZR DGYFCHWSYLVDVTNOINJ  
AAOEFDPZLDSDTJRJAKTVNBKQYAIHZIUTULYTHXUKYBPHEGUWQKVVBKSHRUOHYOAHMOPOQ  
IJFIPWXTQECWMDSMVQMOIICEDBWSCKRGWOPXSXOFVAMPDGSNULTGXFMHKRHHBNDLOGENRI  
LXOSFFCHWSYLV DVTKOMNBPAHBVDEZTHJXIEHHIIRFVXYIJTKIRVQOXRGCYAVQULPBBUSNIAY  
KLVLNMGZWDCHBJMAEKGGCRXZNTSHTUJXVJREDKVWGWWRKGXPMNXVNNXCSCGCPXEULNULHK  
MYXHWXXMJTCMBLRISAWSXAWYVSKKEEKWTUEGFZXUSNVOIUUVUGKXFDAEGLHDETKAEKXJLA  
FUZLSFXVVS G V WISWLQGLH ZTZZZWYEZYHJPRBQSYMEVSOKAYKHPOEWAIEDAXGCALWTMBNB  
XDDCEMAWFRGEZWEGWEJZEQKWFCEEKWFAETLKREEFAOLCPBNWFQOQYIXQHJLXIHPCFDHOLY  
EDKODGKHGGKTMIBJLRGVHHWKIRRDKTUDGHEPYHLFGIELWCFHHKLB OGH RWPHVYCGTZHWHY  
ITXRERIBHFSYTHOSKQDQFBUVHTJMYTWIICUSWSERTWKJTBUPFFZWHDOYRWOWRXC GOLZZXMF  
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