

JAIN VISHVA BHARATI INSTITUTE, LADNUN

(DEEMED UNIVERSITY)

RET JULY - 2016

PART – I LOGICAL REASONING AND APTITUDE TEST

DATE OF EXAMINATION :

ROLL NO. :

SIG. OF INVIGILATOR

TOTAL TIME (PART-I TO III) : 03 HOURS

MARKS : 50X2=100

NOTE :

1. All questions are compulsory and of objective type. / I Hkh i zu vfuo; l , oa oLrfu" B gA
2. All questions carry equal marks. / I Hkh i zu ka ds vad I eku gA
3. Only one answer is to be given for each question. / i R; d i zu dk , d gh mUkj nus gA
4. If more than one answer is marked, it would be treated as wrong answer. / , d l s vf/kd mUkj nus dh n'kk ea i zu ds mUkj dks xyr ekuk tk; s kA

- 1- fuEu ea l s d k s & l h i f j " k n dk fo? k V u 2013 eaf d ; k x ; k \
- Which one of the following Councils has been disbanded in 2013?

¼½ njLFk f'k{k k i f j " k n

Distance Education Council (DEC)

¼½ j k " V h ; f'k{k d f'k{k k i f j " k n

National Council for Teacher Education (NCTE)

¼½ j k " V h ; ' k s { k d v u d U / k k u , o a i f ' k { k . k i f j " k n

National Council of Educational Research and Training (NCERT)

¼½ j k " V h ; e W ; k a d u , o a e k U ; r k i f j " k n

National Assessment and Accreditation Council (NAAC)

¼ ½

- 2- 6, 4, 1, 2, 2, 8, 7, 4, 2, 1, 5, 3, 8, 6, 2, 2, 7, 1, 4, 1, 3, 5, 8, 6, b l J a [k y k e a f d r u s t k M s
- Øec) I [; k e a g s f t u d s c h p 2 d k v l r j g s

In this series: 6, 4, 1, 2, 2, 8, 7, 4, 2, 1, 5, 3, 8, 6, 2, 2, 7, 1, 4, 1, 3, 5, 8, 6, how many pairs of successive numbers have a difference of 2 each ?

¼½ 4

¼½ 5

¼½ 6

¼½ 8

¼ ½

- 3- , d 0; fDr dks l 5 o vke [kjh nus gA l 5 i fr ux #- 7 o vke i fr ux #- 5 gA ; fn ml ds i kl 38#i ; sgArks og fdrus l 5 [kjh n l drk gA
 A person has to buy both apples and mangoes. The cost of one apple is Rs7/- whereas that of a mango is Rs.5/-. If the person has Rs.38, the number of apples he can buy is
- 1 2
 3 4
- ¼ ½

- 4- vkjrh o dky vAsth cky o l e> l drh gA fcVh vPuK dh HkkA fgluh fy[k o i<+ l drh gA vPuK vkjrh l scakyh eackr djrh gA dky dks cakyh l e> ugha vkrhA fcVh vkjrh l fgluh eackr djrh gA og dks gS tks vAsth fgluh vj cakyh cky o l e> l drk gA
 Arti and Kajal can speak and follow English. Bitu can write and speak Hindi as Archana does. Archana talks with Arti also in Bengali. Kajal cannot follow Bengali. Bitu talks with Arti in Hindi. Who can speak and follow English, Hindi and Bengali?
- vPuK@Archana fcVh@Bitu
 vkjrh@Arti dky@Kajal
- ¼ ½

- 5- , d fuf'pr l kAfrd Hkk'kk ea QUESTION 'k n dks l drk ea DOMESTIC fy[k tkrk gS rks bl l kAfrd Hkk'kk ea RESPONSE dks D; k fy[k gA
 In certain coding method, the word QUESTION is encoded as DOMESTIC. In this coding, what is the code word for the word RESPONSE?
- OMESUCEM OMESICSM
 OMESICEM OMESISCM
- ¼ ½

- 6- nh xbz J[kyk eafjDr LFku ea l gh fodYi p q dj fy[kA
 Choose the correct alternative in the given sequence 2, 7, 14, 23, , 47
- 31 28
 34 38
- ¼ ½

- 7- , d 0; fDr 5 fd-eh i fr ?k. Vs dh xfr l s 6 ?k. Vs o 4 fd-eh i fr ?k. Vs dh xfr l s 12 ?k. Vs pyr gA ml dh vj r pky gA
 A man walks at 5 km per hour for 6 hour and at 4 km per hour for 12 hours. His average speed is-
- 4 $\frac{1}{3}$ fd-eh i fr ?k. Vk@ $4\frac{1}{3}$ km/hr
 7 $\frac{1}{3}$ fd-eh i fr ?k. Vk@ $7\frac{1}{3}$ km/hr
 9 $\frac{1}{2}$ fd-eh i fr ?k. Vk@ $9\frac{1}{2}$ km/hr
 8 fd-eh i fr ?k. Vk@ 8 km/hr
- ¼ ½

- 8- , d Vtu , d fuf' pr njih 50 fefuV ea ijk djrh gA ; fn ; g Vtu 48 fd-eh- i fr?k. Vs dh xfr l s pyr h gS rks ml h njih dks 40 fefuV ea ijk djus ds fy, Vtu dh xfr fdruh djuh gkskh\

A train covers a distance in 50 minutes. If it runs at a speed of 48kmph on an average, the speed at which the train must run to reduce the time of journey to 40 minutes will be?

1/4 1/2 45 fd-eh- i fr ?k. Vt@45 kmph

1/4 1/2 60 fd-eh- i fr ?k. Vt@60 kmph

1/4 1/2 55 fd-eh- i fr ?k. Vt@55 kmph

1/4 1/2 70 fd-eh- i fr ?k. Vt@70 kmph

1/4 1/2

- 9- ; fn 9 0; fDr i frfnu 6 ?k. Vs dk; Z djds fdl h dk; Z dks 88 fnu ea ijk djrs gS rks ml h dke dks 6 0; fDr i frfnu 8 ?k. Vs dk; Z djds fdrus fnu ea ijk djaxS

If 9 men working 6 hours a day can do a work in 88 days. Then 6 men working 8 hours a day can do it in how many days?

1/4 1/2 89 fnu@89 days

1/4 1/2 90 fnu@90 days

1/4 1/2 85 fnu@85 days

1/4 1/2 99 fnu@99 days

1/4 1/2

- 10- orZku eaekuo l d k/ku ea=ky; dk dShh; ea-h dksu gS

Who is the present Union Minister of Human Resource Development?

1/4 1/2 Lefr bjkuh@Smriti Irani

1/4 1/2 i dk'k tkoMoj@Prakash Javdekar

1/4 1/2 e[rkj vCckl uDoh@Mukhtar Abbas Naqvi

1/4 1/2 esudk xkKh@Menaka Gandhi

1/4 1/2

- 11- Hkkjr dh dksul k i kphu LFky UNESCO ds }kjk gky gh ea fo'o fojkl r LFky ?kks"kr fd; k x; k gS

Which ancient site of India was recently declared as the UNESCO World Heritage site?

1/4 1/2 Hkkj rh; i or jyos@Mountain Railways of India

1/4 1/2 xkok ds ppl , oa eB@Churches & Convents of Goa

1/4 1/2 ukylnk egkfogkj@Nalanda Mahavihara

1/4 1/2 egkckk/eflnj@Mahabodhi Temple

1/4 1/2

12- I qkhyk pkuqfdl [kly I EcfU/kr gS@Sushila Chanu is associated with which sports?
 1/4 1/2 gkWh@Hockey 1/4 1/2 jI fyx@Wrestling
 1/4 1/2 QVcky@Football 1/4 1/2 fOdV@Cricket

1/4 1/2

13- Hkxoku egkohj ds ekrk&fi rk Fk&@Bhagwan Mahavir was born to-
 1/4 1/2 fl) kFkZ vKj f='kyk@Siddhartha & Trisala
 1/4 1/2 fclUnq kjk vKj ; 'kknk@Bindusara & Yasoda
 1/4 1/2 'kq knuk vKj ek; k@Suddhodana & Maya
 1/4 1/2 plnno vKj I fe=k@Chandradev & Sumitra

1/4 1/2

14- Hkxoku egkohj tSu rHkZj Fk&@
 Bhagwan Mahavira was the Jain Tirthankara

1/4 1/2 22o@22nd 1/4 1/2 23o@23rd
 1/4 1/2 24o@24th 1/4 1/2 25o@25th

1/4 1/2

15- jktLFkku dUnh; fo' ofo |ky; fLFkr g&
 Central University of Rajasthan is located at-
 1/4 1/2 tkki j@Jodhpur
 1/4 1/2 fd' kux<@Kishangarh
 1/4 1/2 vte j@Ajmer
 1/4 1/2 t; ij@Jaipur

1/4 1/2

16- bl J[kyk dks nS[k, 8, 22, 8, 28, 8, vxyk vad dksul k vkuk pkfg, A
 Look at this series: 8, 22, 8, 28, 8, What number should come next?

1/4 1/2 29 1/4 1/2 32
 1/4 1/2 34 1/4 1/2 09

1/4 1/2

17- vil l fxd ; k vikfkr I nsk bVjuV ij Hkst s x; } fo' kskr% cgr cM s mi HkDrk I eng dks
 ml sdg tkrk g&
 Irrelevant or unsolicited messages sent over the Internet, typically to large numbers
 of users is referred to as-

1/4 1/2 ok; jI @virus
 1/4 1/2 Lee@spam
 1/4 1/2 oke@worm
 1/4 1/2 fQf' kx@phishing

1/4 1/2

- 18- , d Compact Disc (R) i j MKV k fy [kus dh i fØ; k dks dgk tkrk g&
 The process of writing data on a Compact Disc (R) is referred to as-
 ¼½ digitizing
 ¼½ zipping
 ¼ ½ burning
 ¼½ copying
- ¼ ½
- 19- vPNs f' k{k.k dsfy, vko'; d g&@What are required of good teaching-
 (a) funku@Diagnosis (b) mi pkj@Remedy (c) funk@Direction (d) i fri f'V@Feedback
 ¼½ a, b, c, & d ¼½ a & b
 ¼ ½ b, c, & d ¼½ c & d
- ¼ ½
- 20- fuEu ea l s d k& l k okD; I g; k& kRed vuq ðkku ds i ð æ ea l gh ugha g&
 Which of the following statements is not true of Participatory Research?
 ¼½ ; g Kku dks 'kfDr ds : i ea i gpkurk g&
 It recognizes knowledge as power
 ¼½ ; g fo 'k& kka ds : i ea 0; fDr; ka i j ncko cukrk g&
 It emphasizes on people as experts
 ¼ ½ ; g 0; fDr; ka ds vki l h l g; k& l s gl& k g&
 It is done with the involvement of people
 ¼½ bl ey m f s ; Kku dk mRi knu g&
 its sole purpose is production of knowledge
- ¼ ½
- 21- vuq ðkku ds ufrd ekun. M ea fu; e 'k& fey ugha g&
 Ethical norms in research do not involve rules for-
 ¼½ 'k& k& i cu/k dks i k: i nsuk@Formatting of the thesis
 ¼½ dkW hj kbV@Copyright
 ¼ ½ , dkf/kdkj uhfr@Patenting Policy
 ¼½ vk& M s foHkk t u uhfr@Data sharing policy
- ¼ ½
- 22- 210 fo | k& k& ka ds , d l ey us , d V& V ea Hkkx fy; ka ¼s fo | k& k& ka dk ek/; 60 i k; k
 x; ka 'k& k fo | k& k& ka dk ek/; 78 i k; k x; ka ml i j s l ey dk ek/; g& k&
 A group of **210** students appeared in a test. The Mean of **1/3 rd** of students is found
 to be **60**. The mean of the remaining students is found to be **78**. The mean of the
 whole group would be-
 ¼½ 90 ¼½ 77
 ¼ ½ 64 ¼½ 72
- ¼ ½

- 23- Lo; a ds l kfk l pkj dks tkuk tkrk g&
 Communication with oneself is known as-
 1/4 1/2 0; oLFkki u l Ecfll/kr l pkj
 Organisational Communication
 1/4 1/2 vQokg l pkj
 Grapevine Communication
 1/4 1/2 ikjLi fjd l pkj
 Interpersonal Communication
 1/4 1/2 vllr l LFkkfud l pkj
 Intrapersonal Communication

1/4 1/2

- 24- dFku (a) : fl Dds dks tc vxyh ckj mNkyk tk; xk rks tails gh vk; xkA
 dkj.k (r) : D; kkd fl Dds dks 5 ckj , d gh l h/k ea mNkyk x; k Fkkj vks gj ckj heads
 gh vk; k FkkA
 fuEu ea l gh mukj dk p; u djka
 Assertion (a): The coin when flipped next time will come up tails.
 Reason (r): Because the coin was flipped five times in a row, and each time it came
 up heads.
 Choose the correct answer from below :
- 1/4 1/2 (a) o (r) nksuka l gh g\$ o (r), (a) dh l gh 0; k[; k g\$
 Both (a) and (r) are true, and (r) is the correct explanation of (a)
- 1/4 1/2 (a) o (r) nksuka xyr g\$ o (r), (a) dh l gh 0; k[; k g\$
 Both (a) and (r) are false, and (r) is the correct explanation of (a)
- 1/4 1/2 (a) l inX/k g\$(r) l gh g\$ o (r), (a) dh l gh 0; k[; k ugha g\$
 (a) is doubtful, (r) is true, and (r) is not the correct explanation of (a)
- 1/4 1/2 -(a) l inX/k g\$(r) xyr g\$ o (r), (a) dh l gh 0; k[; k g\$
 (a) is doubtful, (r) is false, and (r) is the correct explanation of (a)

1/4 1/2

- 25- fuEu ea l s dks l k vkkykbZ l kky usvodZ g&
 Which of the following is an online social network?
 1/4 1/2 fYi dKl@Flipkart
 1/4 1/2 bcs@eBay
 1/4 1/2 jMQesY-dk@rediffmail.com
 1/4 1/2 gkbZ@hike

1/4 1/2

PART – II

RESEARCH METHODOLOGY AND COMPUTER APPLICATIONS

26- Inductive logic studies the way in which a premise may?

support and entail a conclusion

not support but entail a conclusion

neither support nor entail a Conclusion

support a conclusion without entailing it

27- Which of the application can be used for data tabulation & analysis?

MS Word

MS Excel

MS Powerpoint

None of these

28- SPSS stands for-

Software Planning in Social Sciences

Software Package for the Social Sciences

Statistical Package for the Social Sciences

None of these

29- What does a Hypothesis mean?

It is a tentative generalization that is yet to be proved

It is related to only those researches that are based on primary data

It is related to only those researches that are based on secondary data

None of these

- 30- Concept made measureable is-
 Definition
 Variable
 Symbol
 None of these
- 31- Language can become a serious source of bias in-
 Qualitative Research
 Statistical Research
 Mathematical Research
 None of these
- 32- Coefficient of Correlation lies between-
 0 to 1
 -1 to 1
 $-\infty$ to ∞
 0 to ∞
- 33- Open Ended Questions are mostly used in-
 Focus Group Discussions
 Questionnaires
 Interview Schedules
 None of these
- 34- Desk research is more closely associated with-
 Survey Research
 Religious Studies
 Experimental Research
 Clinical Studies

¼ ½

¼ ½

¼ ½

¼ ½

¼ ½

- 35- i kFkfed vkaM+n'kks g&@Primary data denotes-
 1/4 1/2 i kFkfed Lrj ds vk/kkj ij vkaMk l dyu
 Data collected on first hand basis
 1/4 1/2 rRdky vuq U/kku v/; ; u ds fy, vuq U/kkudrkz }kj k vkaMk l dyu
 Data Collected by the researcher for the current on hand research
 1/4 1/2 vuqko fl) <x l s vkaMk l dyu
 Empirically collected data
 1/4 1/2 buea l s l Hkh@All of the these
- 36- uewk ifr dk vuqj.k djuk rkd&@Sampling is carried out so as to-
 1/4 1/2 ykxr dks de djuk@Minimize cost
 1/4 1/2 l yXu l e; dk de djuk@Minimize time involved
 1/4 1/2 fØ; kdyki ds l jyhdj.k l s l fuf'pr djuk@Ensure ease of operations
 1/4 1/2 buea l s l Hkh@All the these
- 37- foKku vk/kkj r g&@Science is based on-
 1/4 1/2 l gt Kku l EcfU/kr vuq U/kku@Intuitive research
 1/4 1/2 nk'kFud vuq U/kku@Philosophical Research
 1/4 1/2 i rh; eku ds e/; dkj.k o i Hkko ds l Ecl/k dks l e>uk
 Understanding cause & effect relationships between phenomena
 1/4 1/2 buea l s dkbz ugh@None of the above
- 38- uewk dj.k eñ ykVjh eFkM dk iz kx gkrk g&
 In sampling, the lottery method is used for-
 1/4 1/2 Li "Vhdj.k ds fy, @Interpretation
 1/4 1/2 l S) kfrddj.k ds fy, @Theorisation
 1/4 1/2 o p kfj drk ds fy, @Conceptualisation
 1/4 1/2 Øeghurk@vØehdj.k@Randomisation
- 39- fuEu ea l s dks & l h , d vuq U/kku dh fo'kSk rk ugha g&
 Which of the following is NOT the characteristic of research?
 1/4 1/2 vuq U/kku Øec) rk g&@Research is systematic
 1/4 1/2 vuq U/kku , d i fØ; k ugha g&@Research is not a process
 1/4 1/2 vuq U/kku l eL; k vk/kkj r g&@Research is problem oriented
 1/4 1/2 vuq U/kku de l z kku ugha g&@Research is not passive

- 40- , d I rkkktud I kf[; dh ifj.kkekRed izkkyh fuEu fo'kkrkvka eafdl h , d dh ifØ; k ugha djuh plfg; &
A satisfactory statistical quantitative method should NOT possess one of the following qualities-
¼½ vkspr; @Appropriateness
¼½ eki u ; kx; rk@Measureability
¼ ½ rgyukRedrk@Comparability
¼½ yphyki u@Flexibility
- ¼ ½
- 41 i qrdao fyf[kr i ek.k] vka dMka ds i kfkfed I kr glrs g&
Books and records are the primary sources of data in-
¼½ , frngkl d vuq U/kku@Historical Research
¼½ I ghkkfirk vuq U/kku@Participatory Research
¼ ½ ushkfud vuq U/kku@Clinical Research
¼½ iz ksk' kkyk vuq U/kku@Laboratory Research
- ¼ ½
- 42- fuEu ea l s dku i "B eki u eadEl; Wj 'kkWZdV I s I EcfU/k ugha g&
Which is NOT related to page alignment in computer short-cuts-
¼½ ctrl+E
¼½ ctrl+L
¼ ½ ctrl+F
¼½ ctrl+R
- ¼ ½
- 43- NSSO , d I hFk gS tks 0; ol k; @ifjopu vuq U/kku iz ksk I s I EcfU/kr g&
NSSO is an institution that is related with undertaking research using-
¼½ tul d[; k I dyu izkkyh@census survey methods
¼½ uewuk izkkyh@sampling methods
¼ ½ iz ksk' kkyk vuq U/kku izkkyh@laboratory research methods
¼½ ushkfud vuq U/kku@clinical research
- ¼ ½
- 44- fuEu ea l sfdl vuq U/kku izkkyh ea ed[; r%Field Notes dke ea ugha fy; s tkr&
Field Notes are basically **NOT** used in which type of research-
¼½ ifj .kke I EcfU/kh vuq U/kku@quantitative research
¼½ ekuo' kL=h; vuq U/kku@anthropological research
¼ ½ xqkkRed vuq U/kku@qualitative research
¼½ 0; fDr bfrngkl fof/k@case studies
- ¼ ½

- 45- $\frac{1}{4}$ $\frac{1}{2}$ Who defined Statistics as the science of estimates and probabilities?
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 Who defined Statistics as the science of estimates and probabilities?
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
- 46- $\frac{1}{4}$ $\frac{1}{2}$ The sequential operations in scientific research are-
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 Co-variation, Elimination of Spurious Relations, Generalisation, Theorisation
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 Generalisation, Co-variation, Theorisation, Elimination of Spurious Relations
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 Theorisation, Generalisation, Elimination of Spurious Relations, Co-variation
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 Elimination of Spurious Relations, Theorisation, Generalisation, Co-variation.
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
- 47- $\frac{1}{4}$ $\frac{1}{2}$ Which is the main objective of research?
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 To discover new facts or to make fresh interpretation of known facts
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 To summarize what is already known
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 To get an academic degree
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 To review the literature
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
- 48- $\frac{1}{4}$ $\frac{1}{2}$ Sampling error decreases with the-
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 decrease in sample size
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 increase in sample size
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 process of randomization
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$
 process of analysis
 $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{2}$

49- fuEu ea l s dksul h nks i f j o r u ' k h y o l r o k a d s c h p , d j s [k h ; I a k d h r k d r d k e k i u g &

Which of the following is a measure of the strength of a linear association between two variables-

1/4 1/2 t-test

1/4 1/2 Anova

1/4 1/2 Chi-Square Test

1/4 1/2 Pearson's Correlation

1/4 1/2

50- I k e k f t d f o k k u v u d U / k k u e a i f j o r u ' k h y r k d h f o ; k ' k h y r k d k e r y c g &

'Operationalization of Variables' in social science research means-

1/4 1/2 i f j o r u ' k h y r k d k l e > u s d s f y , i ; k i r l j y r k n s u k

Making the variables simple enough to understand

1/4 1/2 i f j o r u ' k h y r k d k s e k i u ; k k ; c u k u k

Making the variables measurable

1/4 1/2 i f j o r u ' k h y r k d k s r k f d b l o e y x l u k

Arranging the variables in a logical order

1/4 1/2 i f j o r u ' k h y r k d k s v u d U / k k u ; k k ; c u k u k

Making the variables fit for research

1/4 1/2

