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Code No. : S-374

Roll No.....

Total No. of Sections : 03

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Annual Examination - 2019

B.Sc. Part - III

ELECTRONICS

Paper - I

POWER ELECTRONICS, MICROPROCESSOR
& ITS FUNDAMENTALS

Max.Marks : 50

Min.Marks : 17

Time : 3 Hrs.

Vhi % [k.M ^v* eanl vfry?kjkjh izu g\$ ftlgagy djuk vfuok; Zg\$ [k.M ^c* eay?kjkjh ç'u ,oa [k.M ^1 * eanl?kz mÿkj ç'u g\$ [k.M ^v* dks l cl sigysgy dja

Note : Section 'A', containing 10 very short-answer-type questions, is compulsory. Section 'B' consists of short-answer-type questions and Section 'C' consists of long-answer-type questions. Section 'A' has to be solved first.

Section - 'A'

fuukdr vfry?kjkjh ç'uka ds mÿkj ,d ;k nls okD; ka ea na
Answer the following very short-answer-type questions in one or two sentences. (1x10=10)

ç'u 1- SCR dk l erÿ; ifji Fk cukvks A

Draw equivalent circuit of SCR .

ç'u 2- XRA vkwj\$ku dks mnkgj.k nçj crkvka

Give operation of XRA with example.

ç'u 3- LXIH, 7050 eafdrus ckbV dh vko'; drk gkrh g\$

How many bytes are required for LXIH, 7050 instruction.

ç'u 4- TRIAC ds cukoV dks crkvka

Represent the construction of TRIAC .

P.T.O.

ç'u 2- μp & 8085 ds, M\$1 x ekM D; k g\$ foLrkj l s crkb, A

What are the addressing modes of microprocessor 8085? Write in detail.

OR

MkVk Cykd ds LFkkurj.k ds fy, , d cyh y\$ost i\$kte fyf[k, A bl dk i R; kf'kr ifj.kke Hkh fyf[k, A

Write an assembly language programming for the transfer of data blocks, also write the expected result.

ç'u 3- IC 8155 fiu vkmV dk l fp= o.ku dhft, A

Describe IC 8155 pin out with diagram.

OR

o\$M jftLVj \$MftVy l s, ukylx duovj½ dks l e>kb; A

Explain weighted register type D / A converter.

ç'u 4- fQftdy] MkVk fyad rFkk u\$odZys j dh dk; fof/k dk o.ku dhft, A

Describe the working of physical layer, data link layer and network layer.

OR

rhu izdkj ds WWW nLrkost ka dh ryuk dhft, A

Compare the three types of WWW documents.

ç'u 5- TCP / IP ekM\$y dks foLrkj l s l e>kb; A

Explain in detail TCP / IP model.

OR

ISDN dh foLrkj l s foopuk dhft, A

Discuss ISDN in detail.

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ç'u 5- dh ykkl vkmV ekM fdI IC eagkrk gš
In which IC there is key lock out mode.

ç'u 6- μp 8085 eabv/j Qšl x dksfn[kkusdsfy, dksu l h IC iz qR dh tkrh gš
Which IC is used to display interfacing in μp 8085?

ç'u 7- I puk ea , UVki h dk D; k vFkZ gkrk gš
What do you meant by entropy in information?

ç'u 8- http RkFkk html dk ijk #i fy[kkš
Write full form of *http* and *html*.

ç'u 9- OSI ekMy dsfj l hoj l kbM eapks uaj dh irZ dk uke crkvkš
What is the name of the fourth number layer in OSI model in the receiver side?

ç'u 10- foHku i zkj dh u/odZ Vki ksyk h D; k gš
What are the various type of network topology?

Section - 'B'

fuEkdR y?k mYkj; ç'ula ds mYkj 150&200 'kn l hek ea na
Answer the following short-answer-type questions with word
limit 150-200 (3x5=15)

ç'u 1- SCR dh dk; fof/k] fp= l fgr l e>kb; š
Explain working of *SCR* with neat diagram.

OR

DIAC ij vk/kfjr ifji Fk D; k gš
What are *DIAC* based circuits?

ç'u 2- vFkšVd bšVŠ'ku dks mnkj.k l fgr l e>kb; š
Discuss arithmetic instruction with examples.

OR

nks valka ds ; ks dsfy , l ayh yšost i ške fyf[k, A
Write assembly language program for adding two numbers.

ç'u 3- *A/D* duoVj dk dk; Bkj h fl) kr l e>kb, A
Explain working principle of *A/D* converter?

OR

R-2R yMj *D/A* duoVj dks l e>kb; š
Explain *R-2R* ladder *D/A* converter.

ç'u 4- cktj l svki D; k l e>rs gš dN cktj ds uke fyf[k, A
What do you mean by browser? Write the name of fine, well known browsers.

OR

gkbij VDLV VM Qj i k/kkly dks l fkr ea l e>kb, A
Explain in brief the Hyper Text Transfer Protocol.

ç'u 5- LAN, MAN rFkk WAN dks l fkr ea crkb; š
Explain *LAN*, *MAN* and *WAN* in brief.

OR

OSI, *TCP/IP* ekMy eavrj crkb; š
Write difference between *OSI* and *TCP/IP* model.

Section - 'C'

fuEkdR nk?k mYkj; ç'ula ds mYkj 300&350 'kn l hek ea na
Answer the following long-answer-type questions with word
limit 300-350 (5x5=25)

ç'u 1- *V-I* vfkyk(kf.kd oš ds vk/kj ij *UJT* dh l j puk rFkk dk; fof/k l e>kb; š
Give the structural description and working of *UJT* with respect to *V-I* characteristic curve.

OR

fjyDI šku nkfy= ds #i ea *UJT* ifji Fk dh foopuk dhft , A
Discuss *UJT* circuit as relaxation oscillator.

P.T.O.