उधार

सील

आधिकारकाता, मेडीकल इलेक्ट्रानिक्स चारकी परीक्षा-अद

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सूचना

(1) सदर प्रश्नपुस्तिकेत 80 अनिवार्य प्रश्न आहेत. उमेदवारांनी प्रश्नांची उत्तरे लिहिण्यास सुरुवात करण्यापूर्वी या प्रश्नपुस्तिकेत सर्व प्रश्न आहेत किंवा नाहीत याची खात्री करून घ्यावी. असा तसेच अन्य काही दोष आढळल्यास ही प्रश्नपुस्तिका समवेक्षकांकडून लगेच बदलून घ्यावी.

(2) आपला परीक्षा-क्रमांक ह्या चौकोनांत न विसरता बॉलपेनने लिहावा.

- (3) वर छापलेला प्रश्नपुस्तिका क्रमांक तुमच्या उत्तरपत्रिकेंवर विशिष्ट जागी उत्तरपत्रिकेवरील सूचनेप्रमाणे न विसस्ता नमूद करावा.
- (4) या प्रश्नपुस्तिकेतील प्रत्येक प्रश्नाला 4 पर्यायी उत्तरे सुचिवली असून त्यांना 1, 2, 3 आणि 4 असे क्रमांक दिलेले आहेत. त्या चार उत्तरपैकी सर्वात योग्य उत्तराचा क्रमांक उत्तरपित्रकेवरील सूंचनेप्रमाणे तुमच्या उत्तरपित्रकेवर नमूद करावा. अशा प्रकारे उत्तरपित्रकेवर उत्तरक्रमांक नमूद कराताना तो संबंधित प्रश्नक्रमांकासमोर छायांकित करून दर्शविला जाईल याची काळजी घ्यावी. ह्याकरिता फक्त काळ्या शाईचे बॉलपेन वापरावे, पेन्सिल वा शाईचे पेन वापरू नये.
- (5) सर्व प्रश्नांना समान गुण आहेत. यास्तव सर्व प्रश्नांची उत्तरे द्वावीत. घाईमुळे चुका होणार नाहीत याची दक्षता घेऊनच शक्य तितक्या वेगाने प्रश्न सोडवावेत. क्रमाने प्रश्न सोडविणे श्रेयस्कर आहे पण एखादा प्रश्न कठीण वाटल्यास त्यावर वेळ न घालविता पुढील प्रश्नाकडे वळावे. असा प्रकारे शेवटच्या प्रश्नापर्यंत पोहोचल्यानंतर वेळ शिल्लक राहिल्यास कठीण म्हणून वगळलेल्या प्रश्नांकडे परतणे सोईस्कर ठरेल.
- (6) उत्तरपित्रकेत एकदा नमूद केलेले उत्तर खोडता येणार नाही. नमूद केलेले उत्तर खोडून नव्याने उत्तर दिल्यास ते तपासले जाणार नाही.
- (7) प्रस्तुत परीक्षेच्या उत्तरपत्रिकांचे मूल्यांकन करताना उमेदवाराच्या उत्तरपत्रिकेतील योग्य उत्तरांनाच गुण दिले जातील. तसेच ''उमेदवाराने वस्तुनिष्ठ बहुपर्यायी स्वरूपाच्या प्रश्नांची दिलेल्या चार पर्यायापैकी सर्वात योग्य उत्तरच उत्तरपत्रिकेत नमूद करावीत. अन्यथा त्यांच्या उत्तरपत्रिकेत सौडविलेल्या प्रत्येक चार चुकीच्या उत्तरांसाठी एका प्रश्नाचे गुण वजा करण्यात येतील''.

ताकीद

ह्या प्रश्नपत्रिकेसाठी आयोगाने विहित केलेली वेळ संपेपर्यंत ही प्रश्नपुस्तिका आयोगाची मालमत्ता असून ती परीक्षाकक्षात उमेदवाराला परीक्षेसाठी वापरण्यास देण्यात येत आहे. ही वेळ संपेपर्यंत सदर प्रश्नपुस्तिकेची प्रत/प्रती, किं वा सदर प्रश्नपुस्तिकेतील काही आशय कोणत्याही स्वरूपात प्रत्यक्ष वा अप्रत्यक्षपणे कोणत्याही व्यक्तीस पुरिवणे, तसेच प्रसिद्ध करणे हा गुन्हा असून अशी कृती करणाऱ्या व्यक्तीवर शासनाने जारी केलेल्या "परीक्षांमध्ये होणाऱ्या गैरप्रकारांना प्रतिबंध करण्याबाबतचा अधिनियम-82" यातील तरतुदीनुसार तसेच प्रचलित कायद्याच्या तरतुदीनुसार कारवाई करण्यात येईल व दोषी व्यक्ती कमाल एक वर्षाच्या कारावासाच्या आणि/किंवा रुपये एक हजार रकमेच्या दंडाच्या शिक्षेस पात्र होईल.

तसेच ह्या प्रश्नपत्रिकेसाठी विहित केलेली वेळ संपण्याआधी ही प्रश्नपुस्तिका अनिधकृतपणे बाळगणे हा सुद्धा गुन्हा असून तसे करणारी व्यक्ती आयोगाच्या कर्मचारीवृंदापैकी, तसेच परीक्षेच्या पर्यवेक्षकीयवृंदापैकी असली तरीही अशा व्यक्तीविरूद्ध उक्त अधिनियमानुसार कारवाई करण्यात येईल व दोषी व्यक्ती शिक्षेस पात्र होईल.

पुढील सूचना प्रश्नपुस्तिकेच्या अंतिम पृष्ठावः गहा

कृच्च्या कामासाठी जागा / SPACE FOR ROUGH WORK

1.		meter uses gen saturation.	r	ed and _		infrared wavelengths for measurement of					
	(1)	650 nm and 85	0 nm	n (2)			605 nm and 680 nm				
	(3)	650 nm and 80	5 nm		(4)	605	nm and 805 nm	l			
2.	Imp	lantable defibrill	ator del	ivers		_ene	rgy to the patier				
	(1)	30 - 35 J at 750	v		(2)	30 -	35 J at 400 V				
	(3)	30 - 400 J at 70	00 V		(4)	700	J at 4000 V				
3.	Hali	f adder circuit is	used to	add 2 bit							
	(1)	With			(2)	Wit	hout				
	(3)	And			(4)	Nor	e of the above				
4.	For	homeostasis of			ly acce	essible	e to electrodes i	n case	of hidden fissures		
	(1)	Spray coagulat		(2)	Ford	ed coagulation					
	(3)	Desiccation			(4)	Fulg	guration				
5.	The	protein free solu	tion pro	oduced at	glome	rulus	of the nephron	is calle	 ed		
	(1)	Solvent	(2)	Urine		(3)	Creatinine	(4)	Filtrate		
6.	In L	Utrasonic Spirom	eter, the	gas flow	-metei	ope	rates in the rang	ge of _			
	(1)	40 - 20 kHz	(2)	20 - 20 kF	łz	(3)	20 - 200 kHz	(4)	40 - 200 kHz		
- -		pital Centralized	_	pply syste	m reg	ulates	and maintains	oxyger	and nitrous oxide		
	(1)	300 - 345 kPa		(2)	275 -	345	kPa				
	(3)	375 - 425 kPa		(4)	Non	e of t	he above				
—-											

8.		ited state nuclid and state are kr				s nun	nber, aton	nic nun	nber a	nd neutrons as the	
	(1)	Isobars	(2)	Isoto	opes	•	(3)	Isomers		(4)	Isotones
9.	State	e True or False	regardi	ng los	sless	image	comp	oression te	echniqu	es :	
	(a)	It is reversible	Con	ompression ratio is low							
	(1)	(a) True, (b) T	rue		(2)	(a) T	ſrue, ((b) False			
	(3)	(a) False, (b) T	rue		(4)	(a) I	False,	(b) False			
10.	Real	lisation of m th or	rder IIR	digita	al filte	er requ	ires _		numbe	er of c	onstant multipliers.
	(1)	m	(2)	m/2	2		(3)	m²		(4)	2m
11.	Line	earity of a syste	m indic	ates _							
	(1)	Homogeneity				(2)	Sup	erposition	ì		
	(3)	Both (1) and ((2)			(4)	Nor	e of the a	bove	•	
12.	Nur	nber of Leucocy	tes in r	f bloo	d san	ple is	·				
	(1)	5,000 to 50,00	0	(2) 5,0			5,000 to 10,000				
	(3)	2,000 to 7,500	ŀ		(4)	10,0	00 to	1,00,000			
13.		nterference filte smitted.	ers the			 _ of th	ne die	————lectric lay	yer dete	ermin	es the wavelength
	(1)	Thickness				(2)	Mat	erial			
	(3)	Colour				(4)	Non	e of the a	bove		
14.		uto analyzer us nally	_	atholo	ogy la	borate	ory, th	ne ratio of	sampl	ing tir	ne to wash time is
	(1)	1:2	(2)	2:1			(3)	3:1	(4)	Non	e of the above
		·							_		

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15.	Average diameter of dialyzer membrane in AKD machine is											
	(1)	30 Å	(2)	70 Å		(3)	40 Å		(4)	50 Å		
16.	If $H(z) = 1 / z - 1$ and its input is $u(n)$, then the response $y(n)$ is											
	(1)	u(n + 1)			(2)	(2) nu(n)						
	(3)	nu(n-1)			(4)	None	e of the a	above				
17.		time durati le is represer	•		excita	tion w	ave is de	elayed i	n the	fibres near	the AV	
	(1)	ST segmer	nt		(2)	QRS	complex	C				
	(3)	P-Q interv	/al		(4)	None	e of the a	above				
 18.	The Laplace transform of $x(t)$ can be interpreted as the transmultiplication by real signal.									nsform of :	c(t) after	
	(1)	(1) Fourier, impulse (2) Z Transform, im						lse				
	(3)	Z Transfor	rm, exponen	ntial (4)	Fou	rier, ex	oponentia	al				
 19.	The angle response of Fourier spectrum of real f(t) is function											
	(1)	Even	(2) Odd	(3)	Dep	ends o	on f(t)	(4)	Non	e of the ab	ove	
20.		maximum o			ubject	is cap	able of r	eleasing	the c	onductor o	called as	
	(1)	16 mA in 1	males and 10	0.5 mA in	femal	es.						
	(2)	(2) 16 mA in both males and females.										
	(3)	10.5 mA ir	n males and	12 mA in	femal	es.						
	(4)	(4) None of the above										

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21.			ircuit has resonance find C is doubled from			•					
	(1)	25	(2)	50		(3)	100	(4)	200		
22.	In g	as filled detector	s, GM	counters o	perate	e in	regio	on.			
	(1)	Region I	(2)	Region II		(3)	Region III	(4)	Region IV		
23.	Cho	ose the function	f(x) for	r which Foi	ırier s	eries o	cannot be defir	ned in (-	- ∞, ∞):		
	(1)	$3 \sin(2x)$			(2)	2 co	s(3x+2) + 3si	n(5x)			
	(3)	$e^{- x }\sin(15x)$			(4)	1					
24.	Frec	uency of operati	on of	solid state	diathe	rmy i	S				
	(1)	250 kHz to 1 M	ΙΗz		(2)	250	kHz to 500 M	Hz			
	(3)	500 kHz to 1 M	IHz		(4)	Non	e of the above				
 25.	Fun	Functional volume of the lungs that does not participate in gas exchange is									
	(1)	End expiratory	volun	ne (2)	Tida	al volu	ime				
	(3)	Inspiratory volu	ume	(4)	Dea	d spa	ce				
26.	Wha	nt are the three st	teps in	generating	, PCM	in th	e correct seque	ence ?			
	(1)	Sampling, quar	ntizing	and encod	ling	(2)	Encoding, sa	mpling a	and quantizing		
	(3)	Sampling, enco	ding a	and quantiz	zing	(4)	Quantizing,	sampling	g and encoding		
27.	•	ression relating w		ngth of radi	iation	and tl	ne angle of refl	ection in	diffraction grating		
	(1)	$m\lambda = 2d \sin\theta$	(2)	$\lambda = 2d \sin \theta$	θ	(3)	$m\lambda = d \sin\theta$	(4)	$m/\lambda = 2d \sin\theta$		

Find	I the output of system v	vith h(n) =	{3, 2, 1} and	$1 x(n) = \{3, 2, 3\}$	3} such t	hat y(n) = x(n)*h(n)					
(1)	{9, 12, 16, 3, 8} ↑	(2)	{9, 12, 16 ₀	, 8, 3}							
(3)	{9, 12, 16, 8, 3}	(4)	{9, 16, 12 _.	, 3, 8}							
"Slo	pe overload" occurs in	delta mod	ulation whe	en the							
(1)	(1) frequency of the clock pulses is too low.										
(2) rate of change of analog waveform is too large.											
(3)	(3) step size is too small.										
(4)	analog signal varies ve	ery slowly	with time.								
In Ultrasonic imaging :											
Vel	ocity of sound in the me	edium x Tin	ne —— gives :								
(1)	Intensity of Ultrasoun	d	(2)	Attenuation	of Ultra	sound					
(3)	Change in velocity of	Ultrasound	1 (4)	Depth of Per	netration	of Ultrasound					
						lirectly through th					
(1)	Q-R interval	(2)	ST segmen	nt							
(3)	Upstroke of T wave	(4)	QRS comp	olex							
		naximum	expected e	rror associate	d with 1	measurement or					
(1)	Resolution (2)	Precision	(3)	Accuracy	(4)	Range					
Extr	eme contrast stretching	yields									
	0 1 1 1 1 1 1 1	(2)	Dynamic	range compres	eion						
(1)	Grey level sliding	(2)	Dynamic .	ange compres	531011						
	(1) (3) "Slo (1) (2) (3) (4) In U Vel (1) (3) Ven hear (1) (3) Wha sens (1)	(1) {9, 12, 16, 3, 8} (3) {9, 12, 16, 8, 3} "Slope overload" occurs in (1) frequency of the clock (2) rate of change of analogous is too small. (3) step size is too small. (4) analog signal varies verification in the mean (3) Change in velocity of Ventricular fibrillation is preheart during "vulnerable perification in the preheart during "vulnerable perification is preheart during "vulnerable perification in the mean (3) Upstroke of T wave What term describes the resensor? (1) Resolution (2)	(1) {9, 12, 16, 3, 8} (2) (3) {9, 12, 16, 8, 3} (4) "Slope overload" occurs in delta mode (1) frequency of the clock pulses is to (2) rate of change of analog wavefor (3) step size is too small. (4) analog signal varies very slowly In Ultrasonic imaging: Velocity of sound in the medium x Time 2 (1) Intensity of Ultrasound (3) Change in velocity of Ultrasound (3) Change in velocity of Ultrasound (1) Q-R interval (2) (3) Upstroke of T wave (4) What term describes the maximum sensor? (1) Resolution (2) Precision	(1) {9, 12, 16, 3, 8} (2) {9, 12, 16, 12, 12, 16, 12, 12, 16, 12, 12, 16, 12, 12, 16, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12	(1) {9, 12, 16, 3, 8} (2) {9, 12, 16, 8, 3} (3) (9, 12, 16, 8, 3) (4) {9, 16, 12, 3, 8} "Slope overload" occurs in delta modulation when the	(3) [9, 12, 16, 8, 3] (4) [9, 16, 12, 3, 8] "Slope overload" occurs in delta modulation when the					

300 ml of oxygen and 300 ml of Carbon dioxide

300 ml of oxygen and 250 ml of Carbon dioxide

(3)

(4)

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41.	A counter having N flip flops has a modulus of												
	(1)	2 ^N			(2)	N^2		(3)	2/N	(4)	N/2		
42.	Stat	Statement - I: If A and B are square matrices then AB and BA have the same Eigen values.											
	Stat	emen	t - II :	If A	$=\begin{bmatrix} B \\ 0 \end{bmatrix}$	$\begin{bmatrix} C \\ D \end{bmatrix}$ then E	igen v	alues	of				
		A = Eigen values of B + Eigen values of D.											
	Stat	Statement - III: If S is an n-rowed real skew symmetric matrix and I is the unit matrix of order n, then I+S is a singular matrix.											
	(1) (3)		•			true. s true.			n statement - the statement		ement - II are true.		
43.	Match List - I (Modulation / Reception techniques) with List the correct answer :									II (Disadv	antages) and select		
	List - I								List -	11			
	(a)	Sup	erhete	rodyr	ne rec	eiver		(i)	Constant b	onstant bandwidth			
^	(b)	FM						(ii)	Granular n	oise			
	(c)	PCN	A .					(iii)	Image frequency interference				
	(d)	Delt	a mod	dulatio	on			(iv)	Quantizatio	on noise			
		(a)	(b)	(c)	(d)								
	(1)	(i)	(iii)	(iv)	(ii)								
	(2)	(iii)	(i)	(iv)	(ii)								
	(3)	(i)	(iii)	(ii)	(iv)								
	(4) 	(iii)	(i)	(ii)	(iv)								
44.	Tun	gsten	target	in a	statio	nary anode	X-ray	tube	has a high m	nelting poi	nt of		
	(1)	3450)°C		(2)	3800°C		(3)	8000°C	(4)	3400°C		
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45.	Six coins are tossed 6400 times.	Using Poisson distribution find the approximate probability
	of getting six heads x times.	

(1)
$$\frac{e^{-640}(64)^x}{x!}$$

(1)
$$\frac{e^{-640}(64)^x}{x!}$$
 (2) $\frac{e^{-320}(320)^x}{x}$ (3) $\frac{e^{-100}(100)^x}{x!}$ (4) $\frac{e^{-640}(64)^x}{x}$

(3)
$$\frac{e^{-100}(100)^x}{x!}$$

(4)
$$\frac{e^{-640}(64)^x}{x}$$

46.	The amount of air that could be voluntarily expelled after completing a normal quiet respiration
	cycle is

Tidal Volume (1)

- (2) **Expiratory Capacity**
- (3) **Expiratory Reserve Volume**
- (4) Resting Tidal Volume

47.
$$ZT \{(n+1)a^n \mu(n)\}$$
 is _____.

- (1) $Z / (Z-a)^2$
- $Z^2/(Z-a)$ (2)
- (3) $Z^2 / (Z-a)^2$
- (4) None of the above

- Length of Pendulum is enlarged by $\frac{1}{864}$ of its original length. (1)
- Length of Pendulum is enlarged by $\frac{1}{8640}$ of its original length. (2)
- Length of Pendulum is shortened by $\frac{1}{8640}$ of its original length. (3)
- (4)None of the above

- Pepsin (1)
- (2)Secretin
- (3) Trypsin
- **(4)** Bile Salt

Image segmentation can be achieved by ____ 50.

(1)Discontinuities (2) Similarities

(3)Both (1) and (2) (4) Either (1) or (2)

SPACE FOR ROUGH WORK

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The register that allows movement of data in the right or left direction is called as a register.											
(1)	Shift			(2)	Universal						
(3)	Left - Right			(4)	Righ	Right - Left					
Whi	ich out of the belo	ow is 1	not a function	on of	Liver	?					
(1)	Plasma Protein	Synth	nesis	(2)	Syn	Synthesis and Secretion of antibodies					
(3) Removal of antibodies (4) Storage and transportation							rtation	on of bile			
Microwave frequency for therapeutic heating is											
(1)	2540 MH2		(2)	2450) MH	Z					
(3)	2245 MHz		(4)	Nor	e of th	ne above					
Sign	flag is set when	·	·								
(1)	Result is 1FH			(2)	Result is FFH						
(3)	Result is 8FH			(4)	Rest	alt is both FFH a	nd 8FF	Ŧ			
The	The Inverse Laplace Transform of $\tan^{-1} \frac{2}{s^2}$ is :										
(1)	$\frac{1}{t}e^{t}\sin t$	(2)	$\frac{2}{t}$ sin t sin	ht	(3)	$\frac{1}{t}$ sin t sin ht	(4)	$\frac{1}{t}e^{t}\cos t$			
The	frequency range	of	wa	ves re	corde	ed in EEG is 8 H	z to 13	3 Hz.			
(1)	Delta	(2)	Theta		(3)	Beta	(4)	Alpha			
Elec	Electrical equivalent circuit of bio-potential electrode consists of										
(1)	resistor and cap	acitor	in parallel	(2)	resistor and capacitor in series						
(3)	only resistor			(4)	only capacitor						
	regi (1) (3) Whi (1) (3) Mic (1) (3) Sigr (1) (3) The (1) Elec (1)	register. (1) Shift (3) Left - Right Which out of the below of the	register. (1) Shift (3) Left - Right Which out of the below is a control of the below is a con	register. (1) Shift (3) Left - Right Which out of the below is not a function (1) Plasma Protein Synthesis (3) Removal of antibodies Microwave frequency for therapeutic (1) 2540 MHz (2) (3) 2245 MHz (4) Sign flag is set when	register. (1) Shift (2) (3) Left - Right (4) Which out of the below is not a function of (1) Plasma Protein Synthesis (2) (3) Removal of antibodies (4) Microwave frequency for therapeutic heating (1) 2540 MHz (2) 2450 (3) 2245 MHz (4) None Sign flag is set when	register. (1) Shift (2) Unit (3) Left - Right (4) Right Which out of the below is not a function of Liver (1) Plasma Protein Synthesis (2) Synthesis (3) Removal of antibodies (4) Store Microwave frequency for therapeutic heating is 1. (1) 2540 MHz (2) 2450 MHz (3) 2245 MHz (4) None of the sign of	register. (1) Shift (2) Universal (3) Left - Right (4) Right - Left Which out of the below is not a function of Liver? (1) Plasma Protein Synthesis (2) Synthesis and Secret (3) Removal of antibodies (4) Storage and transpo Microwave frequency for therapeutic heating is (1) 2540 MHz (2) 2450 MHz (3) 2245 MHz (4) None of the above Sign flag is set when (1) Result is 1FH (2) Result is FFH (3) Result is 8FH (4) Result is both FFH as The Inverse Laplace Transform of $\tan^{-1}\frac{2}{s^2}$ is: (1) $\frac{1}{t}e^t\sin t$ (2) $\frac{2}{t}\sin t \sinh t$ (3) $\frac{1}{t}\sin t \sinh t$ The frequency range of waves recorded in EEG is 8 Hz (1) Delta (2) Theta (3) Beta	register. (1) Shift (2) Universal (3) Left - Right (4) Right - Left Which out of the below is not a function of Liver? (1) Plasma Protein Synthesis (2) Synthesis and Secretion of (3) Removal of antibodies (4) Storage and transportation Microwave frequency for therapeutic heating is			

- A source of angular frequency 1 rad/sec has a source impedance consisting of 1 Ω resistance 58. in series with 1 H inductance, the load that will obtain maximum power transfer will be
 - 1 Ω resistance (1)
 - (2)1 Ω resistance in parallel with 1 H inductance.
 - 1 Ω resistance in series with 1 F capacitor. (3)
 - 1 Ω resistance in parallel with 1 F capacitor.
- The value of $\int_{-2}^{1} \int_{x^2+4x}^{3x+2} dy dx$ is _____
 - $(1) \quad \frac{5}{4}$
- (2) $\frac{4}{5}$ (3) $\frac{9}{2}$

- What is the power contained in SSB transmission when the carrier power is 1kW and the modulation index is 0.3?
 - (1) 22.5 W
- (2) 90 W
- (3) 300 W
- (4)1 kW
- The inverse Z-transform of : $\frac{z}{(z-2)(z-3)}$, |z| > 3 is ______. 61.
 - (1) $2^{k-1}+3^k, k \ge 0$
- $(2) \qquad -2^k, \ k \ge 0$
- $2^{k}+3^{k-1}, k \geq 0$
- $(4) -2^k+3^k, \ k \ge 0$
- In an unbounded strain gauge, 1% change is observed in resistance due to 4000 micron strain, then the gauge factor will be equal to ______.
 - (1)25
- (2)250
- 0.4
- 2.5 (4)
- A thermistor with a material constant β of 4500K is used as a thermometer. If R at 37°C is equal to 85 k Ω then R at 25°C will be
 - 15.25 k Ω (1)
- 152.5 k Ω (2)
- 152.5 Ω (3)
- (4) $1.52~\Omega$

64.	of th	Pacemaker during for the pacemaker and case available. Which we want to be age available which we will be a case of the case o	during s	econd	part o	f the i	mpulse, the o					
	(1)	Current pacemak	er			(2)	Voltage pac	emaker				
	(3)	Voltage limited of	urrent p	acemal	ker	(4)	None of the	above				
65.		ch one of the follow	_				-	uced by a	noisy resistor R ?			
	(1)	kTB ((2) 4k'	ТВ		(3)	4kTBR	(4)	2kTBR			
66.		is used to a	chieve r	ninimu	m rec	luction	of logical ex	pression.	·			
	(1)	D-Morgan's Theo	(2)	Воо	Boolean Algebra							
	(3)	Karnaugh Map		(4)	Nor	ne of tl	ne above					
67.	In monochromatic X-ray, $I_t = I_0 e^{-\mu x}$ where μ represents the											
	(1)	Characteristic atte	nuation	coeffic	cient o	of tissu	ie					
	(2)	Thickness of tissu	e									
	(3)	Dielectric constan	ıt									
	(4)	None of the above	?									
68.	Hou	nsfield number for	air and	bone i	n Con	nputer	tomography	is	respectively.			
	(1)	-1000 and +10	00		(2)) 0 and +1000						
	(3)	-1000 and 0			(4)	+10	00 and -100	00				
69.	8051	has or	n chip R	ROM.				-	-			
	(1)	00 kB (2) 2 k	В		(3)	4 kB	(4)	16 kB			

70.	8051	is a								
	(1)	8 bit microproc	essor		(2)	16 t	oit micropro	ocesso	r	
	(3)	8 bit microcont	roller		(4)	16 ł	oit microco	ntrolle:	r	
71.		n electrical netwo		a circuit ha	s 5 noc	les an	d 8 branche	es, ther	n numb	per of loops will be
	(1)	4	(2)	2		(3)	3		(4)	13
72.	R w	ave in ECG sign	al has	typical an	nplitud	e of _			_	
	(1)	1 μV	(2)	1 mV		(3)	1 V	(4)	None	e of the above
73.	The	typical value of	Electr	o-retinogra	am is _				,	
	(1)	850 μV	(2)	500 μV		(3)	690 µV	(4)	None	e of the above
74.		r the execution o	~	-		5, the	stack point	er		_ and the contents
	(1)	increases			(2)	deci	reases			
	(3)	either increases	or de	ecreases	(4)	non	e of the abo	ove		
75.	Non	ninal values of p	ressur	es in the A	Arterial	syster	m are in th	e rang	e of	
	(1)	10 - 20 mmHg	(2)	6 - 25 m	mHg	(3)	3 - 30 mn	nHg	(4)	30 - 300 mmHg
76.		nan Physiologica oth out the muse			which	intero	epts variou	ıs sens	sory an	d motor nerves to
	(1)	Central Nervou	ıs Syst	tem (2)	Med	dulla d	oblongata			
	(3)	Cerebrum		(4)	Cere	ebellu	m			
77.	First	sound in origin	al hea	rt sounds	represe	ents _	C	of ECG	, ,	
	(1)	P wave	(2)	QRS con	nplex	(3)	R wave		(4)	T wave

78.	(1) Displacement			(2)	rement of Volume Change		
	(3)	Temperature		(4)	None of the above		
7 9.	Ring	counter uses		type of	flip-flop.		
	(1)	J - K	(2)	S - R	(3) D	(4)	T
	, ,					` '	
80.	Нои	v many control s	ignals	are availabl	le in 8085 ?		

- o O o -

SPACE FOR ROUGH WORK

सूचना — (पृष्ठ 1 वरून पुढे....)

- (8) प्रश्नपुस्तिकेमध्ये विहित केलेल्या विशिष्ट जागीच कच्चे काम (रफ वर्क) करावे। प्रश्नपुस्तिकेव्यितिरिक्त उत्तरपत्रिकेवर वा इतर कागदावर कच्चे काम केल्यास ते कॉपी करण्याच्या उद्देशाने केले आहे, असे मानले जाईल व त्यानुसार उमेदवारावर शासनाने जारी केलेल्या ''परीक्षांमध्ये होणाऱ्या गैरप्रकारांना प्रतिबंध करण्याबाबातचे अधिनियम-82'' यातील तरतुदीनुसार कारवाई करण्यात येईल व दोषी व्यक्ती कमाल एक वर्षाच्या कारावासाच्या आणि/किंवा रुपये एक हजार रकमेच्या दंडाच्या शिक्षेस पात्र होईल.
- (9) सदर प्रश्नपत्रिकेसाठी आयोगाने विहित केलेली वेळ संपल्यानंतर उमेदवाराला ही प्रश्नपुस्तिका स्वतःबरोबर परीक्षाकक्षाबाहेर घेऊन जाण्यास परवानगी आहे. मात्र परीक्षा कक्षाबाहेर जाण्यापूर्वी उमेदवाराने आपल्या उत्तरपत्रिकेचा भाग-1 समवेक्षकाकडे न विसरता परत करणे आवश्यक आहे.

					नमुना प्र	श्न					
Pick out the	corre	ect word to	fill in th	e blan	ւk :						
Q. No. 201.	I cor	ngratulate	you		_ your grand s	uccess.					
	(1)	for	(2)	at	(3)	on	(4)	about			
	ह्या प्र	श्नाचे योग्य	उत्तर ''(3)	on"	असे आहे. त्यामु	ळे या प्र	श्नाचे उत्तर	"(3)" ₹	ोईल.	यास्तव ख	ालीलप्रमाणे
	प्रश्न	क्र. 201 सम	गोरील उत्तर-	क्रमांक	ज ''③'' हे वर्तुळ	पूर्णपणे	छायांकित क	रून दाखि	ाणे आ	वश्यक आहे	ī.

प्र. क्र. 201. (1) (2) (4)

अशा पद्धतीने प्रस्तुत प्रश्नपुस्तिकेतील प्रत्येक प्रश्नाचा तुमचा उत्तरक्रमांक हा तुम्हाला स्वतंत्ररीत्या पुरविलेल्या उत्तरपत्रिकेवरील त्या त्या प्रश्नक्रमांकासमोरील संबंधित वर्तुळ पूर्णपणे छायांकित करून दाखवावा. ह्याकरिता फक्त काळ्या शाईचे बॉलपेन वापरावे, पेन्सिल वा शाईचे पेन वापरू नये.

कच्या कामासाठी जागा /SPACE FOR ROUGH WORK