No. of Printed Pages: 7

Sl. No.

21PHY1S1LP



Question Booklet Code

M.Sc. I Semester Degree Examination, April/May - 2023 Skill Enhancement Courses (SEC) PHYSICS

Design of Electrical and Electronics Circuits (CBCS)

Time: 1 Hour Maximum Marks: 30

INSTRUCTIONS TO CANDIDATES

- 1. The Question Paper will be given in the form of a Question Booklet. There will be four/two/one versions of Question Booklets with Question Booklet Code viz. **A**, **B**, **C** & **D** / **A** & **B** / **A**.
- 2. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same Code.
- 3. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him contains all the 30 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same Code. This is most important.
- 4. A blank sheet of paper is attached to the Question Booklet. This may be used for Rough Work.
- 5. Please read carefully all the instructions on the top of the Answer Sheet before marking your answers.
- 6. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using **Black Ball-Point Pen** in the OMR Answer Sheet.
- 7. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator.
- 8. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.
- 9. First fifteen minutes is provided to fill the general information of the Student. Eg. Student Name, Student ID, etc. in the OMR Answer Sheet.
- 10. Without the instruction of the Invigilator do not open the Question Paper Booklet Seal.

1.	Who developed Python Programming Language?								
	(A)	Wickvan Rossum	(B)	Rasmus Lerdorf					
	(C)	Guido van Rossum	(D)	Niene Stom					
2.	Whi	ch of the following is a type of	AC motor ?						
	(A)	induction	(B)	synchronous					
	(C)	asynchronous	(D)	Both (A) and (B)					
3.	Whi	ch of the following is the corre	ect ex	tension of the Python file ?					
	(A)	.python (B) .pl		(C) .py (D) .p					
4.	Expl	EYES is bit analog	resolı	ıtion.					
	(A)	6 (B) 12		(C) 24 (D) 64					
5.	In+	ve clipper, the diode conducts	when	1:					
	(A)	V _{in} ref	(B)	$V_{in} = V_{ref}$					
	(C)	$V_{in}>V_{ref}$	(D)	V _{in} <v<sub>ref</v<sub>					
6.	In w	hich one of the following diod	es the	e cut-in voltage is large?					
	(A)	Schottky diode	(B)	PN diode					
	(C)	Both (A) and (B)	(D)	None					
7.	An Operational Amplifier can amplify								

(A) AC Signal (B) DC Signal (C) Both (D) None

8.	The	sensing element in the therm	omet	er must provide	in resistance.
	(A)	small change	(B)	no change	
	(C)	large change	(D)	infinite change	
9.	Whi mot	ch of the following rule is used or ?	d to	determine the direction	on of rotation of DC
	(A)	Coulomb's Law			
	(B)	Lenz's Law			
	(C)	Fleming's Right-hand Rule			
	(D)	Fleming's Left-hand Rule			
10.	Whi	ch of the following is "open sou	ırce"	software ?	
	(A)	Debian (B) Ubuntu		(C) SUN	(D) All of them
11.	Mos	t effective method to control D	C mo	otor using a microcon	troller is
	(A)	Pulse Amplitude Modulation			
	(B)	Pulse Width Modulation			
	(C)	Pulse Position Modulation			
	(D)	All the above			
12.	Clar	nping circuit is also known as			
	(A)	DC Restorer	(B)	DC Reinserted	
	(C)	Baseline stabilizer	(D)	A11	
13.	The	efficiency of the DC motor at n	naxin	num power is :	
	(A)	75 to 90%	(B)	50 to 75%	
	(C)	Less than 50%	(D)	99%	

14.	Which one of the following rectifiers uses four diodes?								
	(A)	Half wave			(B)	Full	-wave		
	(C)	Bridge			(D)	Non	e		
15.	Wha	at is the output	of A	= [1 0 2]; b	= [3	0 7];	c = a.*b;		
	(A)	[2 0 21]			(B)	[3 0	14]		
	(C)	[14 0 3]			(D)	[7 0	3]		
16.	An .	Amplifier Circui	it/Blo	ock Diagra	m co	nsist	s of	_ stage	S.
	(A)	5	(B)	4		(C)	3	(D)	2
	****				1 ,1	• ,	1 /	•	<i>.</i>
17.		en the base region of the base r	on 18	common to	o botl	n 1/p	and o/p circ	uits, the	configuration is
	(A)	CE	(B)	СВ		(C)	CC	(D)	open circuit
18.	To s	stop the execution	on of	a MATLAE	3 com	mano	d, used keys	3	
	(A)	ctrl+c	(B)	ctrl+s		(C)	ctrl+b	(D)	ctrl+clear
					••.				
19.	The	command used							
	(A)	clear	(B)	close all		(C)	clc	(D)	quit
20.	Wha	at is the return	tyne	of angles f	incti	on in	MATLAR 2		
20.			type	or angles i			ians		
	(A)	Degrees			(B)				
	(C)	Both	. (8) (18) 20 2		(D)	ьер	ends on argı	ıment	
A									

21.	Which of the following functions is a built-in function in Python?									
	(A)	factorial()	(B)	print()		(C)	sqrt()	(D)	seed()	
22.	The	efficiency of a t	hree-	phase indu	action	n mo	tor can be	expected	to be nearly :	
	(A)	60 to 80%			(B)	80 to	90%			
	(C)	95 to 98%			(D)	99%				
23.	Whi	ch part of the D	C mo	otor can su	ıstair	n max	kimum temj	perature	rise ?	
	(A)	Armature			(B)	Field	l winding			
	(C)	Slip ring			(D)	Com	mutator			
24.	The	acronym for Exp	EYES	S is:						
	(A)	Exploration of	youn	g engineer	s an	d ser	vices			
	(B)	Experiments for	or you	ıng engine	ers a	and s	cientists			
	(C)	Expenses of yo	uth e	energy in s	ociet	y				
	(D)	All the above								
25.		is an ele	ctric	motor driv	en b	y an	alternating	current.		
	(A)	DC motor			(B)	AC r	notor			
	(C)	Both			(D)	Non	e			
26.	Whi	ch of the following	ng ch	aracter is	used	to g	ive single-li	ne comm	ents in Python	. ?
	(A)	//	(B)	#		(C)	!	(D)	/*	
A										P.T.O.

27.	The PWM control of DC motor varies					with speed.				
	(A)	Linearly			(B)	Inve	rsely			
	(C)	Exponentially			(D)	None	e of the abov	re		
28.	In a	CB configuration	on, th	ne phase d	iffere	nce a	mong the i/	р & о/р	voltages is ?	
	(A)	0°	(B)	90°		(C)	180°	(D)	270°	
29.		LAB 3.0 kit is guage.	open-	-source ha	rdwa	re tha	at works on		programming	
	(A)	Matlab	(B)	Python		(C)	C++	(D)	None	
30.	Thermocouples are tra					cers.				
	(A)	active			(B)	pass	sive			
	(C)	adhesive			(D)	hoth	(A) and (C)			

SPACE FOR ROUGH WORK

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