Office of Deputy Director, Department of School Education and Literacy,

Kolar district, Kolar

Midterm Examination: 2022-23

MAX MARKS: 80

STD: 10

SUBJECT: SCIENCE

TIME: 3.15 HOUR

PART A: PHYSICS

I.	wr		nswer along with its let	01	Choose the correct alternative and 3x1=3				
		a) Ohm b) Coulomb The pair of metals most commonly used in a) Silver and copper		c) Ohm meter in the manufacture b) Copper and ire					
		c) Copper and al	uminium	d) Aluminium an	d iron				
	3.	Which one acts a	as a commutator in elec	etric motors?					
		a) Armature	b) Split rings	c) Magnet	d) Carbon brush				
II.		swer the following State Joule's law	3 questions: of heat generation.		3x1=3				
	5. What is the use of fuse in electrical circuit?								
III.	An	 6. How many amperes of current should these instruments be used in a circuit? a) Fan b) Refrigerator Answer the following questions: 2x2 7. Your friend has connected electrical devices of different capacities in series. Is this true or false, justify your answer. 							
	In a given circuit two wires X & Y are made of same metal and have equal length, but wire Y is slightly thicker than wire X. When the current flowing through the two wires is measured separately by an ammeter, which one carries more current? Why?								
	8.	a) Draw this diag	gram and Identify the N	North Pole.					
		b) At which poin field?	nt this magnet has got s	stronger magnetic	A B				
IV.	Answer the following questions: $3x3=9$								
	9.	Draw the circuit							
	10	. a) What is short	circuit? How can it be	prevented?					
		b) What is the fu							
			OR						
		a) What is solenoi	d? How is the magnetic	c field inside the sole	noid?				
		b) Name two devi	ices that use an electric	motor.					
	11.a) Explain Faraday's experiment related to electromagnetic induction.								

b) Differentiate between direct current and alternating current.

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V7 A -	nswer the following questions:	$4 \times 1 - 4$						
v. A	12. a) State any two precautionary measures that can be taken to avoid overloa							
	electrical circuit.	C						
	b) While making a motor, person A winds a wire on aluminium and persor	ı B on soft iron.						
	Whose decision is better? Give a suitable reason for your answer.							
VI. A	Answer the following questions:	5x1=5						
	13. a) How to connect ammeter and voltmeter in an electrical circuit? What i	s the use of these in						
	electrical circuit?							
	b) State the factors on which the heat generated in a resistor depends on	Joule's law of heat						
	generation.							
	PART B: CHEMISTRY							
VII.	0 01							
	write the complete answer along with its letter of alphabet. 14. The gas used to protect chips from oxidation(rancidity) in packaging is:	3x1=3						
		ıe						
	15. A solution turns blue litmus into red, its pH value is:							
	a) 7 b) 5 c) 9 d) 12							
	16. When you are bitten by honeybee, the home remedy you can use is:a) Common saltb) Turmericc) Lemon juiced) Baking	a ha						
VIII	a) Common salt b) Turmeric c) Lemon juice d) Baking I. Answer the following questions:							
,	17. Rancidity is an oxidation reaction. Why?							
	18. What is neutralisation?							
	19. Alkaline toothpaste is used to prevent tooth decay. Why?							
īV	2-2-0							
17.	IX. Answer the following questions:							
	20. Silver nitrate should not be stored in a transparent container. Give scientific reasons. 21. Draw a diagram to show acid solution in water conducts electricity.							
	22. What are amphoteric oxides? Give example.							
X.	Answer the following questions:	3x3=9						
	23. a) Chemical equations must be balanced. Why?							
	b) Write balanced chemical equation for the following reactions.							
	i) Hydrogen combines with oxygen to form water.ii) quick lime added to water							
	OR							
	How exothermic reactions are different from endothermic reactions? Gi	ve one example for						
	each with suitable chemical equations.							
	24. The reaction of acids with metallic oxides resembles neutralisation restatement and explain with an example.	action. Justify this						
	25. Draw a diagram of electrolytic purification of copper and label							
	a) anode b) cathode							
XI.	Answer the following questions: 1x4=							
	26. a) Most of the metals do not produce hydrogen when reacts with dilute nb) Zinc displaces iron from ferrous sulphate solution, why? Write the ch this reaction.	and person B on soft iron. 5x1=5 uit? What is the use of these in depends on Joule's law of heat bose the correct alternative and 3x1=3 kaging is: d) Chlorine d) 12 use is: d) Baking soda 3x1=3 3x2=6 Give scientific reasons. ricity. 3x3=9 ms. actions? Give one example for alisation reaction. Justify this el 1x4=4 rith dilute nitric acid. Why?						
	OR	a Wilson						
Offi	a) Metals are used in the production of cooking utensils and electric wire ice of DD_DSE & L_Kolar District X Science N	<u>s. Why?</u> /idterm_2022_23						

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b) Write any two differences in chemical properties of metals and non-metals.

PART C: BIOLOGY

	PAK				
XII. Four alternatives a	re given for each of the	e following questions. (Choose the correct altern	ative and	
write the complete	e answer along with its	letter of alphabet.		2x1=2	
27. Which among	g the following is the fu	unction of stomata?			
a) water abso		b) Transpiration			
c) translocati	on	d) Water transpor	rtation		
28. Which plant	hormone promotes cel	l division?			
a) Auxin	b) Gibberellin	c) Cytokinin	d) Abscisic acid		
XIII. Answer the follo	wing questions:			2x1=2	
29. What is nutri	tion?				
30. What are Dec	omposers?				
XIV. Answer the follow	ring questions:			3x2=6	
31. Identify and	name the part A and w	rite its function.			
	A				
32. Suggest any fo	our activities in the dai	ly life which are eco fr	iendly		
33. Describe the	formation of ozone lay	er with equation.			
	OR				
Why the flow	of energy in the ecosys	stem is unidirectional?			
XV. Answer the following questions:					
34. Explain the b	reakdown of glucose tl	nrough different proce	sses.		
	OR				
	-		hotosynthesis in plants.		
	erences between arteri				
	ctions of following hor				
a. Thyroxin		testosterone			
XVI. Answer the follo	wing questions:			2x4=8	
		atany evetam and label	the following parts		
37. Draw a diagr					
37. Draw a diagr a. Kidney	b. ureter c. urinary	bladder d. urethra			
37. Draw a diagr a. Kidney 38. i) Explain hov	b. ureter c. urinary v electrical impulses tr				