AL-AMEEN OLYMPIAD 2024

CLASS-VIII

Time: 3 hours Full Marks: 100

			ENG	<u>ilish</u>		
1."If	it doesn't rair	n for a	long time, the	earth ge	ets very dr	y." Is an Example of
(A) Z	Zero Conditio	nal	(B) First	t Conditi	onal	
(C)	Second Condi	tional	(D) Thir	d Condi	tional	
2. is t	the structure	of?"				
	If + Past Per	fect	Would have + Could have +	-	- 1	
a) Ze	ero Conditiona	al	b) First	Conditio	nal	
-			d) Third			
•	the blanks w					
			unish me for b	reaking	the chair.	
			c) Will	_		
-		_	n seat belts wh			
Optio	ons:					
a) Co	uld b)	Must	c) May		d) Might	
			succeed			
a) Ca	n b)	Will	c) Migh	t	d) Must	
6. Th	e passive void	e is in	the structure	of Subje	ct + has +	been + Past Participle
+ Ob	ject. Then the	active	e voice is in wh	ich tens	e:	
a) Pa	st Perfect	ŀ	o) Past Perfect	Continuo	ous	
c) Pre	esent Perfect	(d) Present Perfe	ect Conti	inuous	
7. Sta	atement 1:- In	voice	change the su	bject an	d object ir	nterchange.
State	ment 2:- The	form	of the sentence	e change	s in voice	change.
a) S1	is true, S2 is f	alse.	b) S2 is	true, S1	is false.	
c) Bo	th are true.		d) Both	are fals	e.	
8. Co	nvert 'Study l	hard, d	or you will fail'	into con	nplex.	
a) Stu	udy hard and y	you wi	ll you fail?	b) Stud	y hard lest	you should fail
c) Stu	ıdy hard but y	ou wil	l fail.	d) Stud	y hard leas	t you will fail.
9. Co	nvert 'He ran	away	as soon as he	saw me!	Into com	pound sentence-
(a) H	e saw me, and	d at on	ce, he ran awa	y. (b) He	e saw me a	s soon as I ran away.
(c) H	e and I ran aw	ay as	soon as possibl	e. (d) He	e ran away	, and I saw him.
10. C	hange the vo	ice of	the following:			
She h	nad already co	ooked	the food.			
a) Th	e food had alr	ready (cooked her	b) The f	ood had c	ooked her already.
c) The food cooked already.			d) The food had been already cooked.			

11. You are req	uested to post t	this lette	r."		
a) Let the letter		b) Please post this letter.			
c) Your letter m	ust be posted.		d) May	the lett	er be posted.
Choose the righ	t verb phrase:				
12. He finally _	to his m	istake ar	nd apolo	gized.	
a) Gave up	b) Too	k off	c) Put	off	d) Owned up.
13. The plane _	after a sl	ight dela	у.		
a) Took off	b) Took up	c) Took	over	d) Tool	c on
14. We need to	the mee	ting due	to unfo	reseen	circumstances.
a) Put on	b) Call off	c) Take	up	d) Carr	y out
15. Since it was	late, I decided	to stay a	t home'		this sentence is an
example of:					
a) Interrogative	sentence	b) Simp	le sente	nce	
c) Compound se	entence	d) Com	olex sen	tence	
16. Choose the	correct indirect	speech	for the f	ollowin	g:
She said, "Had I	known the tru	th, I wou	ld have	helped	him."
a) She said that	if she knows the	e truth, s	he woul	ld have	helped him.
b) She said that	if she had know	n the tru	ıth, she	would h	nave helped him.
c. She said that	if she had know	n the tru	th, she	would h	ave helped him.
d. She said that	she knows the t	truth and	l would	have he	lped him.
17. He said, "I n	night visit his gr	andpare	nts next	t weeke	nd."
a) He said that h	ne might visit his	s grandpa	arents n	ext wee	kend.
b) He said that h	ne might visit his	s grandp	arents t	he follo	wing weekend.
c) He said that he may visit his grandparents the next weekend.					
d) He said that he might be visiting his grandparents the next weekend.					
18. She said, "W	Vho will accomp	oany you	to the	party?"	
a) She asked wh	o would accom	pany me	to the p	party.	
b) She asked me who will accompany me to the party.					
c) She asked who had accompanied me to the party.					
d) She asked who shall accompany me to the party.					
19. Grandmoth	er said to me, "	May you	live lon	ıg"	
a) Grandmother said, "May I live long."					
b) Grandmother told God may I live long.					
c) Grandmother wished I may live long.					
d) Grandmother wished that I might live long.					
Read the follow	ving extract:				

1. There are various beliefs prevalent in the society as to what should be eaten and what should not be eaten to keep healthy. If one has high blood pressure, one is told to cut down on or stop consuming sodium. A new study from Boston University reveals that low sodium does not actually cause low blood pressure. A little salt Is part of a healthy food plan. The study has shown that the people

with the lowest intake of sodium along with the ones who have the highest intake of sodium have a greater risk of heart disease than the people in the middle.

- 2. There is a theory that drinking milk post infancy is unnatural. It is true that humans are the only species to drink milk as adults. Research shows that we have genetically evolved to adapt to it. Milk products actually play an important role in keeping us healthy. Dairy products are rich in whey, protein, linoleic acid and calcium.
- 3. Fat in general is not a bad thing. The scientific community is still debating the benefits of saturated fats. The other types of fats taken in moderation are good for us. Plant-based fats such as monosaturated fats found in foods like almonds, avocado and omega-3 fatty acids found in fish offer many healthy benefits. These fats may reduce inflammation and improve the quality of blood.
- 4. It may seem that diet products such as light salad dressing are healthier choices to eat but often they are really not. Healthy food like this used to be popular, but many of these products remove the fat and replace it with added sugar. Large amounts of added sugar in the diet may be even more damaging to health than excessive dietary fat.
- 5. A major study from CDC showed that people who consumed a lot of sugar were more than twice likely to die from heart disease. If you opt for a higher food, check the ingredients and food label to make sure that the fats have not been replaced with added sugar. We must study the reports of various researches before adopting any new mode of eating or food habit otherwise the result of the food plan may be opposite of what is expected.

Based on your understanding of the passage, answer the following questions.

20. The reason why we should consume dairy products is:

- a) They are rich in protein and calcium. b) They are tasty and tempting.
- c) They are good for the heart.
- d) They are not very expensive.

21. Which type of people have a greater risk of heart disease?

- 1) People with no intake of salt.
- 2) People with the lowest intake of salt.
- 3) People with moderate intake of salt.
- 4) People with the highest intake of salt.
- 5) People who have multiple complications.
 - a) 1 and 3
- b) 2 and 3
- c) 4 and 5
- d) 2 and 4

22. Plant-based fats are good because they:

- a) Improve the quality of blood.
- b) Improve appetite.
- c) Strengthen mind and body.
- d) Improve heartbeats.

23. The word 'prevalent' in the first paragraph of the passage means:

- a) Most uncommon.
- b) Most common.
- c) Unconventional.
- d) Important.

24. What is more damaging to health than excessive dietary fat?

a) A lot of added sugar in the diet.

b) No sugar intake.

c) Eating saturated fat frequently.

d) No fat intake.

25. Mon saturated fats are found in foods like:

- i) Milk products
- ii) Sugar
- iii) Almonds
- iv) Oil
- v) Avocado

- a) i and iv
- b) iii and v
- c) ii and iv
- d) ii and iii

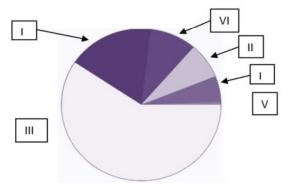
SOCIAL SCIENCE

26. Identify the point plotted in the given map of Assam:-



- A) Manas National Park
- B) Kaziranga National Park
- C) Orang National Park
- D) Dibru- Saikhowa National Park
- 27. Shifting cultivation is also known as _____ in North East India.
 - A) Milpa
- B) Roca
- C) Ladang
- D) Jhum
- 28. A population based pie chart is given below. Carefully examine it and choose the correct option:-

From the above figure, name the largest continent in terms of population:-



- A) I- Asia
- B) I- Africa
- C) III- Asia
- D) III- Africa

29. CITES stands for:-

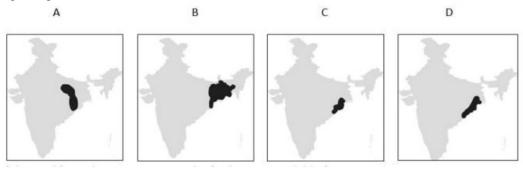
- A) Convention on International Trade in Endangered Species of Wild Fauna
- B) Centre for International trade and Economic Sustainability
- C) Convention on Indian Trade in Extinct Species
- D) Centre for International Trade on Export Surplus
- 30. Name the scholar who wrote the first history of India that covered all periods.
- A) James Rennell
- B) James Mill
- C) James Staurt
- D)James Augustus

A) Birsa B) Ukiang Nong	oah C) Chakra Bisoi D) Sambudhan
32. Which of the following is no	a cause of the Revolt of 1857?
I. Subsidiary Alliance & Doctrine	of Lapse II. High land tax.
III. Grease Cartridges.	IV. Introduction of western education
A) Only I B) Only II C)	Only III D) Only IV
33. Given below is the Jamdani	style of weaving. From the options given below
select the place of its origina	tion:-
A) Gujarat B) Dhaka	C) Kashmir D) Kanchipuram
34. How many High Courts are in	n India?
A) 23 B) 22	C) 25 D) 24
35. Moving of people from one	place to another is called
A) Migration B) Immigration	C) Emigration D) Urbanization
36. Which article of the Indian c	onstitution ensures freedom of religion?
A) Article 14 B) Article 25	C) Article 30 D) Article 32
37 is the most import	ant festival of Assam:-
A) Bihu B) Hornbill	C) Shirui Lily D) Chapchur Kut
38. Which of the following is a r	enewable resource?
I. Coal II. Gold	III. Forest IV. Natural gas
A) Only I B) Only II	C) Only III D) Only IV
39. Match the following and cho	ose the correct option:
II. Satriya II. K III. Bharatnatyam III. C	ssam erala Odisha Tamil Nadu
A) I-II, II-I, III-IV, IV-III	B) I-II, II- III, III- IV, IV-I
C) I-III, II-I, III- II, IV-IV	D) I-I, II-IV, III- II, IV-III
	of India came into force on 29 th November,1949.
	ar was the chairman of drafting committee.
A) I is true but II is false	B) I is false but II is true
	D) Both are false

31. Who led the Munda revolt (1897-1900)?

41. Who is the present President of India? A) Narendra Modi B) Draupadi Murmu C) Pranab Mukherjee D) Rahul Gandhi 42. Name the smallest country of the world. B) Canada A) China C) Russia D) Vatican City 43. Assertion-A: A large portion of lithosphere (90 %) is confined to Northern Hemisphere. Reason-R: Due to the above fact, almost 90 % of the population lives in the Northern Hemisphere. A) Assertion is correct but Reason is wrong B) Assertion is wrong but Reason is correct C) Both are correct and Reason is the correct explanation D) Both are incorrect. 44. According to 2011 census, the population of Assam was:-A) 3 crore B) 3.12 Crore C) 312 Crore D) 31.2 Crore 45. Match the following: I. Rajya Sabha I. Delhi II. Lok Sabha II. 545 seats III. Sansad Bhavan III. Agra IV. Taj Mahal IV. 245 seats A) I-II, II-I, III- IV, IV- III B) I-IV, II- I, III- II, IV-III C) I-IV, II-II, III- I, IV- III D) I-I, II-III, III- IV, IV-II 46. Which of the following leader didn't participate in the revolt of 1857? B) Mahatma Gandhi C) Lakshmi Bai A) Nana Saheb D) Kunwar Singh 47. The Capital city of New Delhi was planned by British architect:-B) George Wittet A) Edwin Lutyers C) John Begg D) Laurie Baker 48. World Environment Day is observed on ____:-B) 25th June C) 15th June D) 5th June A) 5th July 49. Which of the following maps correctly shows the diwani area granted to

the Company in 1765?



50. Of the e	arth's total water	resources, the fres	sh water available f	for our use is:

- A) More than 90%
- B) 50 %
- C) 1 %
- D) Less than 1%

GENERAL MATHS

51. A, B and C started a business with capital ₹12,000, ₹20,000 and ₹24,000 respectively. After 4 months, B takes out ₹4,000 and C added ₹6,000 to his investment. Then, find the profit share of B, if the total profit is 38,600.

- a. ₹2,500
- b. ₹3,500
- c. ₹2,600
- d. ₹3.600

52. Study the statements and choose the correct option.

Statement-1: The square root of certain decimal numbers are obtained by first changing the decimals into fractions with perfect squares as their numerators and denominators.

Statement-2: $(26.1)^2$ lies between 400 and 900

- a. Statements-1 is true and statement -2 is false.
- b. Statements-1 is false and statement -2 is true.
- c. Both statements 1 and 2 are false.
- d. Both statements 1 and 2 are true.

53. The division of non-zero rational number is-

a. Commutative

- b. Associative
- c. Neither commutative nor associative
- d. Both A & B

54. If (a+b): (b+c): (c+a)=6:7:8 and a+b+c =14, then the value of C is-

- a. 6
- b. 8
- c. 14
- d. 7

55. Consider the following statement:-

If money is loaned at simple interest then the:

i. money gets doubled in 5 years at the rate of interest $16\frac{2}{3}\%$

ii. money gets doubled in 5 years at the rate of interest is 20%

Now choose the correct option

- a. (i) & (ii) are correct
- b. (i) alone is correct
- c. (ii) alone is correct
- d. none of these.

56. If $\sqrt[3]{3\left(\sqrt[3]{x} - \frac{1}{\sqrt[3]{x}}\right)} = 2$, then the value of $\left(x - \frac{1}{x}\right)$ is - a. $\frac{728}{9}$ b. $\frac{520}{27}$ c. $\frac{728}{27}$ d. $\frac{328}{15}$

57. If the edge of a cube is increased by 50%, the percentage increase in its surface area is-

- a. 50%
- b. 75%
- c. 100%
- d. 125%

			$=\frac{bx}{(100+x)}$ d. $a = \left(b + \frac{bx}{100}\right)$
59. The value o	of $\sqrt{\frac{0.00001225}{0.00005329}}$ —	$\sqrt[3]{\sqrt{0.000064}} =$	=
a. 0.2	b. 0.279	c. 0.479	d. 0
60. Sonu's gran	ndmother is 80 y	ears old and So	nu is 20 years old. How many
years ago was	his grandmothe	r 7 times as old	as sonu?
a. 8 years	b. 10 years	c. 12 years	d. 15 years
61. How many	numbers are the	ere between 20	0 and 800 which are divisible by
both 5 and 7?			
a. 35	b. 16	c. 17	d. can't be determined.
62. If X4Y5Z is	exactly divisible	by 9, the least v	alue of (X+Y+Z) is –
a. 3	b. 6	c. 9	d. 0
63. If $\frac{1}{(243)^x} = (7.5)^x$	729) ^y 3 ³ , the fir	ıd the value of	5x + 6y
a. 33	b3	c. 297	d. 0
64. If the perim	neter of an equil	ateral triangle a	nd a square is same and the
area of equilat	eral triangle is \pmb{x}	and the area of	f square is y, then
$a.\ x>y$	b. x < y	c. $x \ge y$	$d. x \leq y$
65. When 17 ²⁰	⁾⁰ is divisible	by 18, find th	e remainder –
a. 1	b. 4		d. 3
66. The value o	of $\frac{4\frac{1}{7}-2\frac{1}{4}}{3\frac{1}{2}+1\frac{1}{7}} \div \frac{1}{2+\frac{1}{2+\frac{1}{5-1}}}$		
a. $\frac{7}{29}$	b. $\frac{5}{6}$	c. 1	d. $\frac{9}{13}$
67. A sum of ₹	3310 is to be pai	d back in 3 equa	al installments. How much is
each installme	nt if the interest	is compounded	l annually at 10% per annum?
a. ₹1321	b. ₹1231	c. ₹1331	d. ₹3310
68. While solvi	ng a mathemati	cal problem, Da	nial squared a number and thei
subtracted 25 f	from it rather th	an the required	i.e first subtracting 25 from the
number and th	en squaring it. E	But he got the rig	ght answer. What was the giver
number?			
a. 13	b. 38	c. 48	d. cannot be determined
69. The ratio of	f ages of two bo	ys is 3:4. After 3	years, the ration will be 4:5.
The ratio of the	eir ages after 21	years will be-	
a. 14:17	b. 17:19	c. 11:12	d. 10:11

58. If a exceeds b by x%, then which of the following is correct?

70. Let x and y be two real numbers, such that $-3 < x \le 7$ and -

 $14 \le y \le -3$. Then max value of (x-y)is

a. 4

c. 14

d. 21

71. Let $|x| = \begin{cases} x, & \text{if } x \ge 0 \\ -x, & \text{if } x < 0 \end{cases}$

Let < |x| > = x - 5, then

$$<|7|+|-5|+|-2.5|>-14.5$$

a. -5

b. -12.5

c. -7

d. 5.5

72. The number 0 is-

a. odd

b. Even

c. Neither even nor odd

d. Both even and odd

73. If all interior of a quadrilateral are equal to 90 degrees. Then the quadrilateral will be a-

a. Rectangle or Rhombus

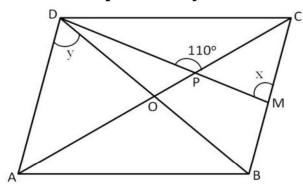
b. Rectangle or square

c. Square

d. Rectangle

74. In the given figure, ABCD is a rhombus and

 $\angle BCD = 80^{\circ}$, find X and Y respectively.



a. 40^{0} , 20^{0}

b. $70^{0}, 50^{0}$

c. 80° , 30°

 $d.50^{0}.40^{0}$

75. Which of the following statement is/are true?

i. $\frac{-5}{0}$ is a negative rational number.

ii. The reciprocal of $\frac{1}{a}$, if a = 0 is $\frac{1}{0}$

iii. $1 \div \left(\frac{-1}{4}\right) = -4$

iv. $x \div (y + z) = x \div y + x \div z$

a. Both (i) and (ii) b. only(iii) c. (i), (ii) and (iv) d. (ii), (iii) and (iv)

GENERAL SCIENCE

76. How many of following algea's habitat is fresh water?

Chlamydomonas, Spirogyra, volvox, chara, ulothrix, Oedogonium

a) 6

b) 4

c) 3

d) 5

77. Match the following with their correct match

- I) Clostridium
- i) iodine

II) Rusts

- ii) food poisoning
- III) Trypanosoma
- iii) puccinia

IV) kelp

- iv) plant diseases
- v) potassium
- vi) botulism
- vii) sleeping sickness
- viii) protozoan

Options:

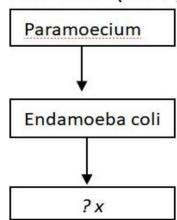
- a. I v, vi
- II ii, iii
- III iv, viii
- IV v, vii

- b. I − ii, vi
- II iii, iv
- III vii, viii
- IV − i, v

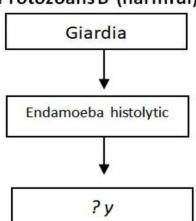
- c. I vi, ii
- II iii, v
- III vii, iv
- IV i, viii

- d. I − v, iii
- II vii, viii
- III iv, v
- IV i, ii

78. Protozoans A (useful)



Protozoans B (harmful)



Complete the boxes x,y with relation to their above boxes

- a) x= Trypanosoma,
- y= plasmodium

- b) x = Zooplankton
- y= Trichonympha(lives in the gut of termites)

c) x = zooplankton

y= Trypanosoma

d) x= zooplankton

y= Euglena

79. Which of the following animals depend on the bacteria living in the gut for the digestion of cell wall based food.

- a) "A majestic feline with orange fur and black strips, known for its stealth in the jungle"
- b) An animal with 3-chembered heart.
- c) An animal that eats both plants and animals.
- d) "A gentle form animals that give us milk"

80. Which of the following best describes a pseudopodium in amoeba?

- a) A permanent organelle for movement
- b) A projection of varying lengths used for feeding and movement.
- c) A rigid structure present in plant cells
- d) A membrane bound component in the cytoplasm

81. Which organelle's dysfunction is most likely to result in reduced ATP production in a eukaryote cell?

- a) Ribosome's
- b) chloroplasts
- c) Mitochondria
- d) Nucleus

82. How does the nuclear pore complex control what goes in and out of the nucleus?

- a) By blocking all big molecules from entering
- b) By only allowing special protons with a "pass code' to go through
- c) By pumping ions in and out of the nucleus
- d) By directly helping DNA copy

Passage:

A team of researchers is studying the differences in cellular structures and functions between prokaryote and eukaryote organisms. They follow on how these differences affect metabolic process adaptability and environmental interactions. For their study they observe bacterial cells under an electron microscope, noticing the absence of membrane bound organelles but a well defined cell wall. They compare this to eukaryotic cells, where organelles but a well defined cell wall. They compare this to eukaryotic cells. Where organelles like mitochondria, chloroplasts and the reduces are distinctly visible. Their findings also highlight that bacterial cells rely on their plasma membrane for energy generation since they lack mitochondria. Additionally they study specialised eukaryotic cells, including nerve cells, muscles and plant guard cells, to understand how cellular structure influence specific functions like contraction and gas exchange.

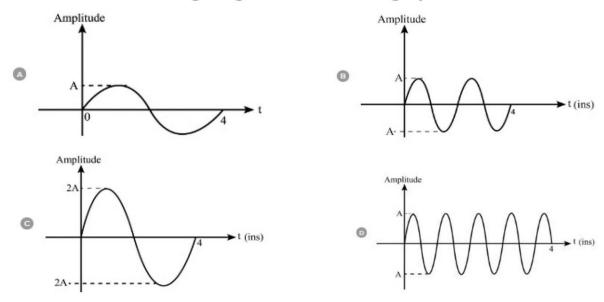
83. Why do prokaryotic cells rely on the plasma membrane for energy production?

- a) They lack ribosome's for energy production
- b) They don't have mitochondria for electron transport
- c) Their cell wall generates ATP.
- d) Their ectoplasm does not contain enzymes for metabolism.

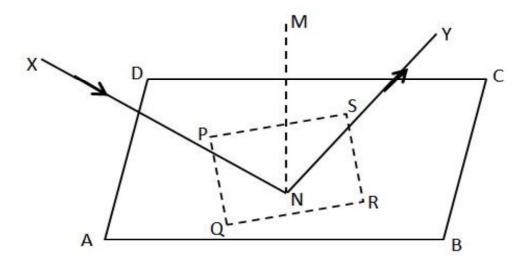
84. Why is the absence of membrane bound organelles in prokaryotes an evolutionary advantage in certain environment?

- a) It allows for faster and replication.
- b) It enables greater production of energy.
- c) It enhances the storage of genetic material.
- d) It increases the number of metabolic pathways.

85. Which of the following diagram indicates high pitch



86.



As per the laws of reflection " the incident ray, the reflected ray and the normal at the point of incidence all lie in the same plane." Identify the plane from the given diagram

- a) ABCD
- b) NRST

c) QNTP

d) PQRS

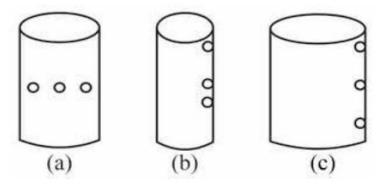
87. The Earth atmosphere exerts a pressure of about 101325 pascals at sea level which is equal to

- a) 57.2 pound psi
- b) 14.7 pounds psi c) 67.5 pounds psi d) 28.6 pounds psi

88. A pendulum swings from its equilibrium position to the left most extreme (10 m away) and back to the equilibrium position in 2 seconds. Choose the correct option after calculating the displacement in 'meter'

- a) 10
- b) 0
- c) 20
- d) 30

89. There are three tins filled with water and have holes of the same size as shown in the diagram below which of the following options correctly identifies true (T) and false (F) for the given statements.



- i) The farthest spout is from the middle hole in case (a)
- ii) The stream of water falls out the farthest through the upper hole in case (b)
- iii) The farthest spout is from the longest hole in case (c)
- (i) a.

- (ii)
- (iii)

- Т
- Т

Т

(i) b.

Т

(ii)

(iii)

F

Т

(i) c.

(ii) F

(iii)

F

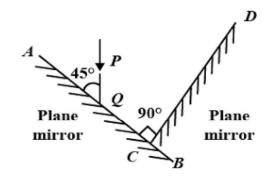
(ii)

Т

(i) d.

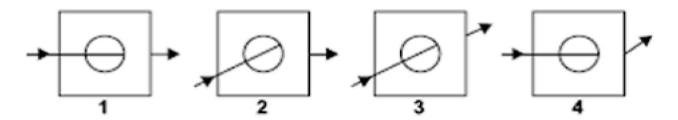
- F
- (iii) F

90. Two plane mirrors AB and CD are placed at right angles to one another. A ray of light PQ hits AB at Q making an angle of 45° as shown in the diagram. His ray will be reflected from mirror CD at an angle of



- a) 20°
- b) 35°
- c) 45°
- d) 60°

91. A ray of light is shown through the hole in a cardboard. Which of the following diagrams show the correct direction of light passing through the *cardboard?*



- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) 3 and 4

92. A liquid of density 1000 kg/ m^3 is filled in a container to a weight of 5m.What is the pressure at the bottom of the container?

- a) 5000 pa
- b) 50000 pa
- c) 500000 pa
- d) 5000000 pa

93. Class 8th students performed an activity in their class as shown in the figure.



They used several other materials listed below in place of the nail. Iron rod, copper wire, coal piece, wood piece, sulphur, Aluminium foil, A small stone.

In which of the following groups (i) to (iv) bulb will not glow at all?

(i) Coal piece and sulphur

- ii) Iron rod, coal piece, small stone
- iii) Iron rod, copper wire, aluminium foi
 - iv) wood piece and small stone.

a) (ii) and (iii) only

b) (i) and (iii) only

c) (iv) only

d) (i) and (iv) only

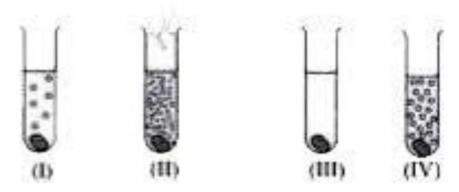
94. Two properties of four substances a,b, c,d are given in table. Which of the following is most likely a metal.

Substances	Melting point (°C)	Electrical	Conductivity
		Solid	Molten form
а	1100	Good	Good
b	1234	Poor	Good
С	2027	Poor	Poor
d	15	Poor	Poor

PASSAGE-

Metals in general have a tendency to evolve hydrogen gas on reacting with acids. In the reactivity series the metals that are placed above hydrogen evolve the gas on reaction with acids while the metals placed below hydrogen do not evolve the gas on reaction with acids. These metals are regarded as inactive metals. Metals placed at the bottom of the series are called noble metals. The reactivity series is as follows- *Li, k, Na, Ca, Mg, Al, Zn, Cr, Fe, Sn, Pb, H, Cu, Hg, Ag, Au, Pt*

95. Pieces of copper, aluminium and Zinc are added to dilute hydrochloride acid. Which of the following test tubes most likely contain zinc

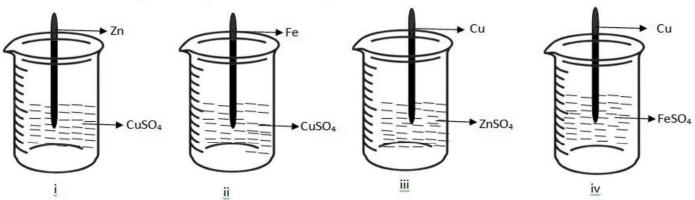


96. Complete the given table about properties of metals:

Property	Meaning
a)	Can be beaten into thin sheets
b)	Can be pulled into wires
c)	Gives a ringing sound when it
d)	Has a shiny appearance

a) a= ductility b= malleability c= sonority d= lustrous b) a= sonority b= ductility c= malleability d= lustrous c) a = malleability b= ductility c= sonority d= lustrous d) a = malleability. b= ductility c= lustrous d= sonority

97. Observe the given figures carefully



In which of the given beakers, reaction will not take place?

a) (i), (ii) and (iii) only

b) (iii), (iv) and (iv) only

c) (ii), (iii) and (iv) only

d) (iii) and (iv) only

98. When magnesium is placed in HCl, a reaction occurs producing hydrogen gas. What factor contributes to the increased reactivity of magnesium with HCl compared to other metals such as copper?

- a) Magnesium has a high atomic mass, which leads to grater reactivity with acids.
- b) Magnesium reacts more readily due to its position higher in the reactivity series compared to copper.
- c) Copper reactor more easily because it has fewer electron shells than magnesium.
- d) Magnesium is less reactive with acids but produces a stronger reaction due to its crystal structure.
- 99. Why do alkali metals such as sodium and potassium needs to be stored under oil or kerosene rather than in open air?
- a) They are easily oxidized by oxygen in the air, farming a protective oxide layer.
- b) They react violently with water in the presence of moisture producing heat & hydrogen gas.
- c) They are too brittle and can break easily, so they require a soft surface for storage.
- d) They need to be kept in a vacuum to prevent them from corroding.

100. Why does an echo take longer to return in a large hall compared to a small room?

- a) Large halls absorb more sound.
- b) Sound travels slower in large halls.
- c). Sound takes more time to reflect in larger distances.
- d) Echoes do not occur in small rooms.