

GENERAL SIR JOHN KOTELAWALA DEFENCE UNIVERSITY

SELECTION TEST FOR THE ENLISTMENT OF OFFICER CADETS/DAY SCHOLARS INTAKE 43

Model paper

Call up No:	
General Instructions:	
Answer <u>all questions</u> .	

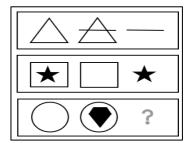
Part - A: General Knowledge & IQ

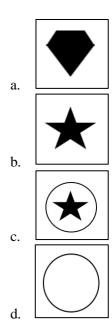
Marks	50
Duration	45 Minutes

- 1. Which event is often considered the starting point of World War II?
 - a. The bombing of Pearl Harbor
 - b. The German invasion of Poland
 - c. The signing of the Treaty of Versailles
 - d. The Battle of Stalingrad
- 2. Who was the first president of Sri Lanka?
 - a. Mr. JR Jayawardena
 - b. Mr. Ranasinghe Premadasa
 - c. Mr. William Gopallawa
 - d. Mrs. Chandrika Kumarathunga
- 3. Which country is known for its policy of neutrality and has not been involved in any wars since 1815?
 - a. Norwayb. Switzerlandc. Swedend. Finland

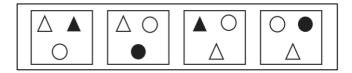
4.	Which	of the following is a main component of a	Vir	tual R	eality System?
		Keybaord Monitor		Head Print	l-mounted Display (HMD) er
5.	Which	branch is the largest in the Sri Lankan Arr	ned	Force	s?
	a.	Sri Lanka Army		c.	Sri Lanka Airforce
	b.	Sri Lanka Navy		d.	Sri Lanka Cost Guard
6.	Which	continent is the largest by land area?			
	a.	Africa		c.	North America
	b.	Asia		d.	Europe
7.	What	does GDP stand for?			
	c.	Gross Domestic Product General Domestic Product Gross Domestic Profit General Domestic Profit			
8.	Which (SDGs	of the following is NOT one of the United s)?	Nat	ions' S	Sustainable Development Goals
	b. c.	No Poverty Quality Education Climate Action Universal Healthcare			
9.	When	was the first parliament meeting held in Sr	i La	nka?	
	a.	1972		c.	1978
	b.	1948		d.	1976
10.	. Which	country provided significant funding and to	echn	iical su	apport for the Uma Oya Project?
	a.	India		C.	Iran
		China			Japan

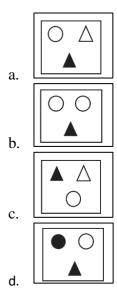
11. What is the most suitable shape that should be replaced with the (?) mark?



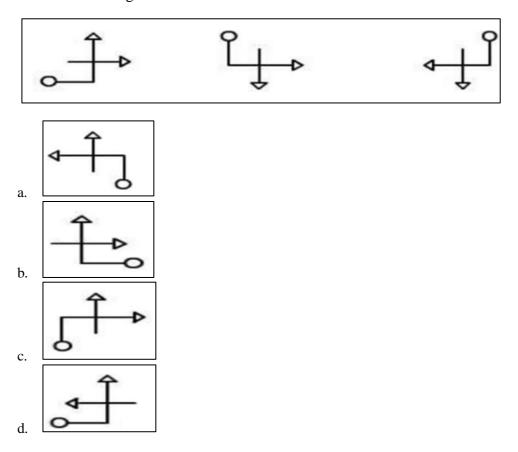


12. The four diagrams are in a logical sequence. Choose the next diagram accordingly.

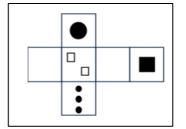


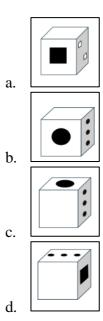


13. What is the next image in the below series?



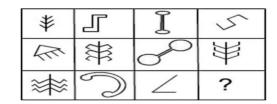
14. If the below net is folded into a cube, which of the given shapes would it look like?

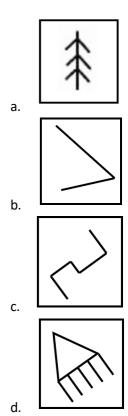




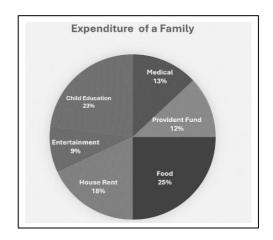
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15. What is the missing figure?





16. The pie chart given here represents a family's domestic expenditures in percent. If the family's total monthly income is Rs. 33,650, What is the monthly expenditure for house rent?

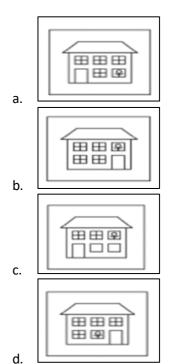


- a. Rs. 6,000.00
- b. Rs. 6,152.00

- c. Rs. 6,057.00
- d. Rs. 6,048.00

- 17. Check the validity of the statement, 'All crows are loud.' Consider that all crows are black, all black birds are loud, and all crows are birds.
 - a. True
 - b. False
 - c. Insufficient Information
 - d. It Depends
- 18. If it rains, then the ground will be wet. The ground is wet. Therefore:
 - a. It definitely rained
 - b. It might have rained
 - c. It didn't rain
 - d. It snowed
- 19. What picture comes next in the sequence?





20. All th that:	e peaches you have ever eaten from the grocery s	tore	have been sweet. You conclude
a.	All peaches are sweet		
b.	Some peaches are sweet		
c.	The grocery store sells sweet peaches		
d.	No peaches are sour		
21. Which	h explanation is weakest?		
a.	The steak was overcooked because I cooked it	too l	long.
b.	Jose didn't drive his car today because it was in	the	shop for repairs.
c.	•		
d.	Samanmali overslept because she stayed up ver	ry la	te last night.
	npany claims that its new energy drink increases ving would be the best way to evaluate this claim	-	• •
a.	Try the drink and see if it works for you		
b.	Ask friends if they have tried the drink		
c.	Look for independent research or reviews on the	ne dr	rink
d.	Compare the price of the drink to other energy	drin	ıks
23. What	number comes next in the series: 1, 4, 9, 16, 25,	?	
a.	36	c.	. 48
b.	30	d.	. 35
24. Which	h letter comes next in the pattern: Z, X, V, T,?		
a.	R	c.	Q
b.	S	d.	. P
25. Find t	the value of 'x' in the expression: $5(x+9)-2x=90$		
a.	x = 15		
b.	x = 9		
c.	x = -15		
d.	x = 5		
26. Simpl	lify the expression: $3(2x-4)+5x$		
a.	11x-4		
b.	11x-12		
c.	6x-12		
d.	10x-4		
27. What	is the mode of the following dataset: 7, 9, 8, 9, 7	, 8, 9	9, 7, 9, 1, 2, 5, 1?
a.	7	c.	9
b.	8	d.	. 1
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a.	0.75
b.	0.25
	0.5
	0.167
u.	0.107
30. What	is the probability of flipping a fair coin and getting heads?
a.	0.25
	0.5
	0.75
	1
u.	1

28. What is the mean of the following data set: 4, 8, 6, 5, 3?

29. What is the probability of flipping a fair dice and obtaining number 1?

a. 4.5b. 5.2c. 5.0d. 5.4

Part B: English

Marks	50
Duration	01 Hour

QUESTION 1: (10 MARKS)
Select the word which is most suitable for the given blanks of each sentence.

1.	If I earlier, I would have caught the bus. a) wake up b) woke up c) had woken up d) was waking up
2.	He has been living in this city five years. a) since b) from c) for d) during
3.	Neither the teacher nor the students present today. a) was b) were c) is d) has been
4.	She speaks English as fluently as a) him b) he c) his d) himself
5.	He is the man car was stolen. a) who b) whose c) whom d) which
6.	She has little interest politics. a) for b) in c) to d) on
7.	No sooner had he arrived it started raining. a) when b) then c) than d) that
8.	He worked hard he might pass the exam. a) although

b) so that c) unless d) if
9. There isn't sugar left in the jar.a) someb) muchc) manyd) few
10. She is the best dancer I seen. a) have ever b) had ever c) ever have d) ever had
QUESTION 2: (10 MARKS)
Choose the most suitable word for each blank from the list below and fill in the blanks.
In the early stages of scientific inquiry, researchers often face immense pressure to (1) novel findings, even when the data remains inconclusive. This urge, while understandable, can lead to (2) interpretations that compromise the integrity of the research process.
A fundamental principle of science is its reliance on (3)—the process of testing and retesting hypotheses through rigorous methodologies. Without it, even the most promising theories risk becoming mere (4)
However, the modern research landscape is increasingly shaped by institutional demands for productivity, creating an environment where scholars may be tempted to prioritize quantity over (5) Such pressures can lead to a proliferation of studies that are (6) in design or scope, contributing little to the broader academic discourse.
Moreover, the (7) of peer review, while intended to safeguard quality, is not immune to bias and inconsistency. Journals may exhibit favoritism, while reviewers themselves may lack sufficient (8) in niche subjects.
To address these issues, some have proposed open-access models and data transparency as (9) reforms. Yet without a corresponding shift in academic culture, such measures risk being merely (10)—symbolic gestures that fail to address the deeper systemic flaws.

- 1.
- A) suppress
- B) publicize
- C) fabricate
- 2.
- A) hasty
- B) meticulous
- C) impartial
- **3.**
- A) replication
- B) revelation
- C) intuition
- 4.
- A) anomalies
- B) conjectures
- C) axioms
- 5.
- A) validity
- B) popularity
- C) velocity
- **6.**
- A) exhaustive
- B) rigorous
- C) superficial
- 7.
- A) mechanism
- B) celebration
- C) jurisdiction

- 8.
- A) evidence
- B) expertise
- C) consensus
- 9.
- A) regressive
- B) token
- C) substantive
- 10.
- A) perfunctory
- B) integrative
- C) exemplary

QUESTION 3: (10 MARKS)

Read the following text and answer the questions given below it.

Asthma is becoming a more prevalent disease since the early 1990s. From 1982 to 1992, the rate of asthma jumped from 34.7 to 49.4 per thousand. The prevalence of asthma in the USA is around 8%. There also has been some mixed trends around the world where different countries have either had increasing cases or have been stagnant.

In children, asthma is presented predominantly in males until the age of 20, where the disease equally prevalent. Differences in childhood can be due to atopy, or because boys have a reduced airway size compared to girls. There is a family history component of asthma, as well. However, the genes responsible for inheriting asthma remain unidentified. There are mechanisms of the phenotype of asthma that has a strong correlation of being inherited, but the mechanism is more complex, as asthma does not follow a Mendelian pattern.

Asthma is most likely transmitted by multiple genes, with some variation of locus heterogeneity and polygenic inheritance leading to asthma expression being multifaceted. Atopy or IgE antibodies attack specific antigens or pollutants, which can contribute to the disease. Research has shown that asthma was closely related to the total IgE serum level. Enhanced IgE response to environmental factors such as house dust mites, animal allergens, mold, farm animals, have contributed to sensitize asthma exacerbating its symptoms and attributing to increased airway reactivity. The reason being is that there is increased exposure to these allergens, but less data is available on the causality. Air pollution and the causation of asthma are also less clear; however, there is a relationship with smoking and the increased risk of asthma. Interestingly enough, obesity showed a positive linear relationship between asthma and increased BMI. More research needs to be done to have a clearer picture of the multifactorial disease.

[Sinyor B, & Concepcion Perez, L., (2023), Pathophysiology of asthma. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK551579/]

- 1. According to paragraph 1, which term best describes the trends observed in different countries regarding asthma cases?
 - a) uniform
 - b) consistent
 - c) varied
 - d) stable

- 2. Asthma became widespread in 1990s compared to the previous decade. a) Yes b) No c) Not given 3. What is the complexity associated with the inheritance of asthma according to the passage? a) The genes responsible for asthma inheritance have been identified but are difficult to study. b) Asthma follows a Mendelian pattern of inheritance, making it easy to predict its inheritance. c) The phenotype of asthma has a weak correlation with inheritance. d) Asthma inheritance involves mechanisms that are more complex than a straightforward Mendelian pattern. 4. What is meant by 'phenotype' in paragraph 2? a) observable characteristics of an organism b) severity of asthma among children c) diagnosis process of a condition d) genes that cause asthma 5. What is suggested as a possible reason for the predominance of asthma in males in childhood? a) family history of asthma b) narrow respiratory track c) identified genetic factors d) Mendelian inheritance patter 6. What is the gene which is responsible for causing inherent asthma?
 - b) Atopy
 - c) Mendeline

a) IgE

- d) Not given

- 7. According to the passage, there is one predominant gene which spreads asthma.
 - a) Yes
 - b) No
 - c) Not given
- 8. What is the relationship between asthma and IgE antibodies?
 - a) IgE antibodies directly cause asthma symptoms.
 - b) Attacks of IgE antibodies on antigens can cause asthma.
 - c) There is a correlation between IgE levels and asthma.
 - d) IgE antibodies have no impact on asthma development.
- 9. According to the passage, which of the following causes asthma?
 - a) mold
 - b) smoking
 - c) IgE
 - d) Antigens
- 10. According to paragraph 3, which statement accurately reflects the relationship between enhanced IgE response and asthma exacerbation?
 - a) Enhanced IgE response is the primary cause of asthma exacerbation.
 - b) Asthma exacerbation leads to enhanced IgE response.
 - c) The link between an exacerbation of asthma and an elevated IgE response is complex.
 - d) Asthma exacerbation has no connection to enhanced IgE response.

QUESTION 4: PARAGRAPH WRITING (20 MARKS)

Select one of the topics given below and write a paragraph of about 150-200 words

- 1. The Impact of Social Media on Youth
- 2. The Importance of Time Management for Undergraduates
- 3. Education is a Tool for Social Change