



ASSET SAMPLE QUESTIONS

ENGLISH | SCIENCE | MATHS



ENGLISH

(A) Read 'Why So Few Women?' and answer questions 1 to 5

Why So Few Women?

I was requested to write a book on the past Indian scientists as part of the Indian National Science Academy's Platinum Jubilee Celebrations. A list of 40 past scientists had been decided upon. This included Nobel Prize winners, Fellows of the Royal Society, and other achievers, all of whom were men. (1)

"Where are the women scientists?" asked Professor Gadgil, suggesting that we include Irawati Karve as a **pioneering* anthropologist***. As luck would have it, a landmark book, *Lilavati's Daughters*, which recorded the experiences of 100 women Indian scientists, had just been published. This helped us add the names of Anna Mani and Kamala Sohoni, two women who struggled very hard to make a mark in the world of science. (2)



But why only three women in a galaxy of 40 **eminent** scientists? Why not twenty out of forty? There was a general view in society at that time that education for women should be **tailored** to their roles as women and homemakers. Kamala Sohoni, the topper of Bombay University, was at first refused admission by Sir C.V Raman - India's first Nobel Laureate in the sciences. He later admitted Kamala, though not as a regular student. Moreover, only a select and privileged group of women belonging to the high caste/class had access to higher education. (3)

The few women who challenged **norms*** society had to struggle **against all odds** to gain acceptance in the male-dominated world of science. Their struggles and sacrifices paved the way for other women. Things have changed since, and according to one estimate, one out of four scientists in India today is a woman, which is something to rejoice about. (4)

Word meanings:

***pioneering** - be the first one to be or do something.

***anthropologist** - a person who studies humans and culture.

***norms** - generally accepted models or standards

1. How did the book Lilavati's Daughters help the writer?

- a. It aided the research for his book.
- b. It introduced him to Irawati Karve's work.
- c. It changed his opinion about women scientists.
- d. It inspired him to adopt a particular writing style.

2. Which of these can replace 'eminent' in paragraph 3 of the passage?

- a. Clever
- b. Well-known
- c. Professional
- d. hard-working

3. Which of these means 'tailored' in paragraph 3 ?

- a. Decreased by a large degree
- b. Modified to suit something
- c. Designed creatively
- d. Improved a little

4. Kamala Sohonie, the topper of Bombay University, was at first refused admission by Sir C.V Raman

What does the above line in the passage convey?

- a. Women's lack of abilities as compared to men.
- b. The quality of instruction at Bombay University
- c. C.V Raman's extraordinary knowledge in science
- d. The common view that science was not for women.

5. The phrase 'against all odds' in paragraph 4 conveys the idea that

- a. Few problems were faced
- b. Chances of success were low
- c. Many benefited from a struggle
- d. Hardly anyone knew about an issue.

6. Which of these words correctly completes all the three sentences given below?

- A. _____ she loved cupcakes, Naina gave the last one to her little brother.
- B. Ayana said that she would go to the party _____ she had a cold.

- C. _____ the sun was shining, we shivered when the wind blew.
- a. however
 - b. moreover
 - c. although
 - d. despite

7. Which of these sentences contain no spelling error?

- A. I always win the award for perfect attendance, but this year was an exception.
- B. The old calender was so dusty that we couldn't see the picture on it anymore.
- C. Although Amina has a very tight schedule, she still came to visit us on Sunday.
- D. Don't expect any holidays since there are no special occassions this month.

8. Which of these sentences is grammatically correct and meaningful?

- A. A chicken meal usually is not cooked greatly by my dad
- B. My dad usually does not cook a great chicken meal.
- C. My dad does not cook a chicken meal greatly, usually.
- D. A chicken meal is usually not cooked great by my dad.

9. Which of these sentences is punctuated correctly?

- A. The carpenter said "It will cost hundreds of dollars to build the dog's kennels."
- B. The carpenter said "It will cost hundred's of dollars to build the dogs' kennels."
- C. The carpenter said "It will cost hundreds of dollars to build the dogs' kennels."
- D. The carpenter said "It will cost hundred's of dollars to build the dog's kennels."

10. The engineering field is flooded with many people now, and its experts are *a dime a dozen*. The underlined phrase in the sentence means that engineering experts are _____.

- A. scarce
- B. employed
- C. very common
- D. very expensive

(B). Read the Librarian of Basra: a true story of Iraq for children and answer questions from 11 to 15

The Librarian of Basra: a true story of Iraq for children

Summary

With limited text and folk art illustrations, author and illustrator Jeanette Winter relates a true story in the Librarian of Basra. It is about how one determined woman helped save the Basra central library's books during the invasion of Iraq (1)

The Librarian of Basra: A true story of Iraq

In April 2003 the invasion of Iraq reaches Basra a port city. Aliya Muhammad Baker the chief librarian of Basra's central library is worried the books will be destroyed. Her request to the Governor to shift the books to a safe place is rejected. Alia **frantically** decides to do what she can to save the books. (2)

Every night Aliya secretly stays home as many books as she can fit in her car. When everyone else abandons the library when bombs hit the city, Alia seeks help from friends and neighbours of the library to save the library's books. (3)

Anis Muhammad who owns a restaurant nearby, helps Alia carry thousands of books across the wall that separates the library and the restaurant and store them in the restaurant. Soon the library is destroyed by fire but about 30,000 of the Basra Central library books had been saved by then. (4)

Author and illustrations

Jeanette Winter is the author and illustrator of a number of children's picture books (5) Created for an audience of ages 7 to 12 the books define a value to the text. Each page features a colourful, boxed illustration with text underneath it. With different colours reflecting the mood, Winter's folk art illustrations strengthen the simple, yet dramatic, story (6)

11. The word invasion in paragraph 1 suggests that Iraq was

-
- a. attacked
 - b. defended
 - c. described
 - d. converter

12. Which of these could replace the second subheading, "The Librarian of Basra: A true story of Iraq". in this passage?

- a. Author's note
- B. Ending on a High Note
- c. Well-rounded characters
- d. what happens in the story

13.The word frantically in the paragraph means to do something

- a.angrily
- b.creatively
- c.hurriedly
- d.independently

14.How does Jeanatte Winter make the story appropriate and interesting for its audience?

- a.By designing a colourful book cover
- b.By choosing to include elements of fantasy
- c.By using the local language of Iraq in the book
- d.By using by company illustrations with text in its layout

15.The passage is most likely

- a.A review of a children's book
- b.A film script based on a book
- c.An excerpt from Alia's biography
- d.A news report on a writer's work in Iraq

(C). Read 'A Glance of Soccer Time- FIFA' and answer questions 16 to 20.



A GLANCE OF SOCCER TIME - FIFA



Football is a family of team sports that involve, to varying degrees, kicking a ball to score a goal. The football tournament, held every four years, was first played in 1930 in Uruguay, and has been contested by 32-teams since the 1998 event. The earliest known form of the game was developed in China around 500 B.C. It was known as cuju (kick ball) and was played with a leather ball. The modern game first developed in England in the 19th century. In 1882, the International Football Association Board (IFAB) was formed. Then FIFA was founded in 1904 to run international competitions. The defending champions are the French national football team, who defeated Croatia 4–2 in the 2018 FIFA World Cup final.



The 2022 FIFA World Cup is an international association football tournament contested by the men's national teams of FIFA's member associations, and the 22nd FIFA World Cup. The event takes place in Qatar from 20 November to 18 December 2022. Being held in Qatar, this is the first World Cup to be held in the Arab world. This tournament is the last with 32 participating teams, as the field will increase to 48 teams for the 2026 tournament. The opening match was between Qatar and Ecuador at Al Bayt Stadium, Al Khor. In their first ever World Cup appearance, Qatar lost 2–0, becoming the first host nation to lose their opening game. And also Argentina crashed to defeat in their opening game in Qatar 2022 as two second half goals from Saudi Arabia made history. The final will be held on 18 December 2022.

16. Which sentence about FIFA's World Cup is true?

- a) The FIFA World Cup is contested by the men's social teams of FIFA's member associations.
- b) FIFA World Cup is an Indian association of football tournaments.
- c) The FIFA World Cup was founded in 1904 to run international competitions.
- d) FIFA World Cup is an Arab association of football tournaments.

17. Which of these gives the meaning of defending in the passage?

- a) Defeat
- b) Attack
- c) Protect
- d) Lose

18. According to the passage, In 1882, IFAB was formed. Identify which acronym will be more suitable for IFAB from the below?

- a) International Football Association Brand

- b) International Football Alliance Board
- c) International Football Association Board
- d) International Football Alliance Brand

19. The opening match was between Qatar and Ecuador at Al Bayt Stadium, Al Khor. What is the most common question that can be asked after the above statement?

- a) Do they want to relax for sometime?
- b) Did they get kicked out of the match?
- c) What an exciting match it is!
- d) Who won the match?

20. What change should be made to the sentence below to make it correct?

Argentina crash to defeat in their opening game in Qatar 2022 as two second half goals from Saudi Arabia made history.

- a) Change 'in' to 'of'
- b) Change 'from' to 'for'
- c) Change 'crash' to 'crashes'
- d) Change 'game' to 'sports'

SCIENCE

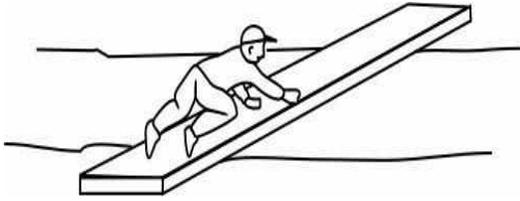
1. Force is the push or pull that is applied on an object. If force is applied to a ball of clay kept loosely on the ground, which of the following may change about the clay ball?

- A. only its shape
- B. only its position
- C. its shape and position
- D. its shape, position and colour

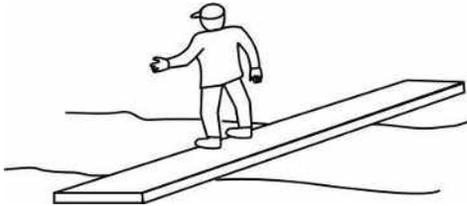
2. Kashyap places a long, wide, thin plank over a stream in order to help him to cross it. Which of the following would be the MOST STABLE way for him to cross the stream?



B



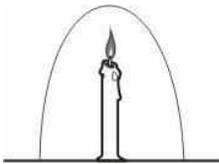
C.



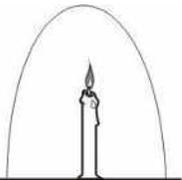
D. All are equally stable.

3. The pictures below show four identical burning candles. Each is covered by a glass container of a different size. Which candle flame will be the last to go out?

A



B.

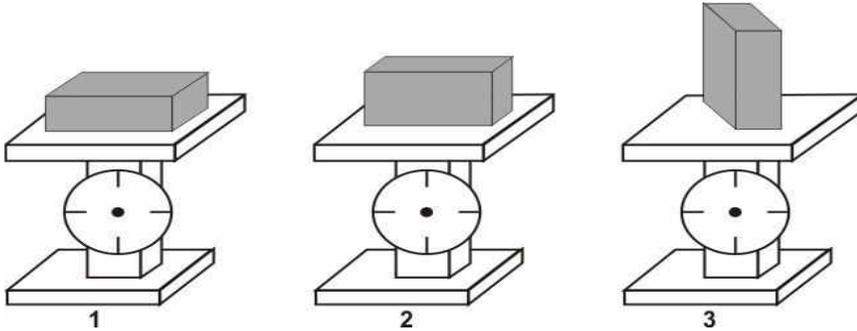


C.



D. All will go out of the same time

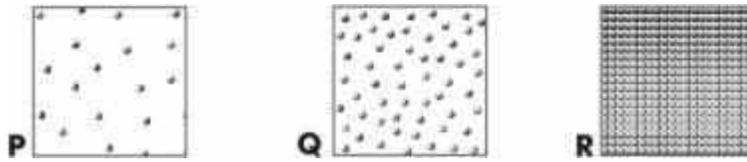
4. The same brick is put on a scale in three different ways:



What will the scale show?

- A. 1 will show the greatest weight
- B. 2 will show the greatest weight
- C. 3 will show the greatest weight
- D. All will show the same weight

5. In the figure below, P, Q and R represent three different physical states of a substance.



A direct change from the state represented by R to that represented by P would be _____.

- A. Evaporation
 - B. condensation
 - C. melting
 - D. sublimation
6. An experiment is being conducted with 3 students of class 5 who are all blindfolded. Some onions, apples and cucumbers are grated and given to each student who has to hold his/her nose closed and eat them. What could be the purpose of the experiment? To determine if:
- A. smell plays any role in identifying taste.
 - B. Foods can be distinguished based on smell.
 - C. foods can be distinguished based on appearance.
 - D. sight, smell and taste play any role in digestion

7. Ramu buried the following in a corner of his garden to dispose them off:

- a broken egg shell
- pencil shavings
- dry leaves
- plastic carry bags
- fruit and vegetable peels.

If the corner is dug up 5 years later, which of these is most likely to have remained the same?

- A. the broken egg shell B. dry leaves
C. plastic carry bags D. pencil shavings

8. Natural resources are those which occur in nature and are not made by humans.

Which among the below can be grouped under natural resources?

Air	Glass	Buildings	Forests	Mountains
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- A only air and mountains
B only buildings and forests
C only forests, mountains and air
D only buildings, glass and mountains

9. Four friends were talking about changes in the shape of the moon. This is what they said.

Arvind: "The moon looks different from different parts of a city on the same night."

Bina: "We can clearly see the change in the shape of the moon every few days."

Camy: "The shape of the moon changes only from summer to winter."

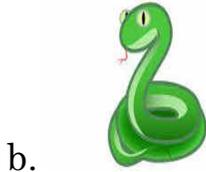
Dravid: "We can see the moon changing shape only once every month."

Who is correct?

- A. Arvind B. Bina C. Camy D. Dravid



When the caterpillar become adult, it will look like



11. Here is a picture of a camel. Rashid studies it and writes these points in his notebook. Which of them is NOT an OBSERVATION?



- A. A camel has a short tail.
- B. A camel has long and well-padded legs.
- C. A camel eats leaves of the neem tree.
- D. A camel has a hump on its back.

12. Raghav and his friends have been given 3 substances and asked to find out which of them is the hardest. Which of these is the most scientific way to start?

- A. Raghav: "Let us understand what is the meaning of hard and a way to measure it."
- B. Ramesh: "This piece of glass is the hardest - I have read that glass is very hard."
- C. Sajida: "Let us ask our seniors the answer - they must have done this last year."
- D. Sanjana: "This is not in our syllabus - how can we do it?"

13. Four people use four different methods to heat water for bathing.

Sheel	Electric water heater
Vishu	Solar water heater
Nithal	Cooking gas
Mohan	Firewood

Who among the four uses a non-conventional energy source?

A Vishu B Sheel C Nithai D Mohan

14. You must have seen how the Moon looks on a full Moon night. Once in many many years, the full moon appears bigger than usual. Such a night is known as the night of the supermoon. The image here shows the difference between the sizes of the full moon on the night of the supermoon and other full moon nights. Although the moon is the same, it appears bigger on the night of supermoon because –



- A. it reflects more sunlight that night
- B. it is closer to the Earth on that night
- C. it goes farther away from the Earth that night
- D. it rises in the same direction as the Sun that night

15. Your father tells you that dals (pulses) are 'harder' to cook than rice. What could this mean?

- A. We can break rice more easily than dals.
- B. Dals need to be boiled longer before they become soft.
- C. We need to clean dals a lot more than rice before cooking.
- D. Dals need to be put in a bigger vessel for them to cook well.

16. Sabina's mother put some objects in Group 1 and some in Group 2. Which question did she ask herself before she put each item into its correct group?

Group 1	Group 2
Temple bell	Chalk piece
Stainless steel vessel	Wood piece
A metal sheet	Cotton ball

- A. Will it break if I drop it?
- B. Does it catch fire easily?
- C. Can we find this in nature?
- D. Will it make a loud sound if I strike it?

17. Shama spilt some oil paint on her white dress. Use the information given below to find out how the paint can be removed from the dress.

Paintbrush used for	Paintbrush washed with	Paintbrush cleaned ?
Water paint	Cold water	Yes
Oil paint	Cold water	No
Oil paint	Kerosene	Yes
Oil paint	Hot water	No

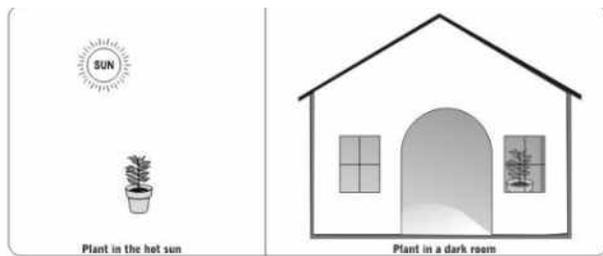
Which of these can be used to clean Shama's dress?

- A cold water
- B cold water, or hot water
- C hot water
- D kerosene

18. Shriram saw the Sun on his LEFT while Kabir saw it on his RIGHT. Based on this, Which of the following statements is true?

- A. They were riding towards each other.
- B. They were both riding in the same direction.
- C. Shriram was riding at 7 am and Kabir was riding at 9 am.
- D. Shriram was looking through his left eye and Kabir through his right eye.

19. Kamran tried to grow two similar plants, one inside a dark room and the other in the hot sun, as shown in the figure. He gave the same amount of water to these plants daily. What was he trying to check?



- A. Do plants need water to grow?
- B. Do plants need light to grow?
- C. Do plants need soil to grow?
- D. Do plants need air to grow?

20. Veena observes the time in the clock shown below through a MIRROR and thinks it is 9:40.



What would be the actual time?

- A 03:20 B 09:40 C 03:40 D 02:20

C. $96 + 24$

D. $96 - 24$

4. A number is multiplied by 1, the answer will always be

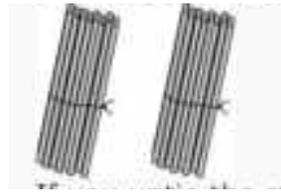
A. 0

B. 1

C. the number itself

D. 1 more than the number

5. Shown below are two bundles with 16 sticks in each.



If you untie the sticks and put them in bundles of 8 each, how many bundles will you get?

A. 2

B. 4

C. 8

D. 16

6. Ekta and Zarina each drank $\frac{1}{2}$ a glass of milk. But Ekta said that Zarina drank less milk than her. Can this be true ?

A. Yes, it can be true if Zarina's glass was smaller.

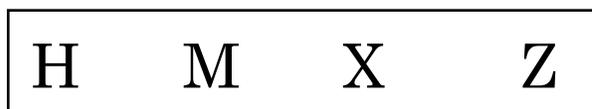
B. Yes, it can be true if Zarina's glass was bigger.

C. Yes, it can be true even if both glasses are exactly the same.

D. No, both of them must have had the same quantity.

7. A line about which a figure is symmetrical is called a 'line of symmetry' for the figure.

Which of the letters in the box given below has no line of symmetry?



A. H

B. M

C. X

D. Z

8. Which of the angles below is nearest in measure to the one formed by the boy's arms ?



A



B



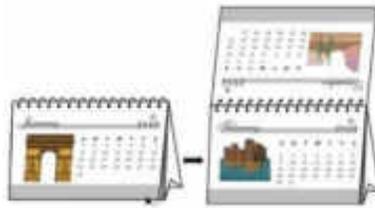
C



D



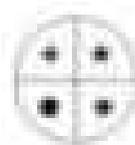
9. A desk calendar consists of 6 sheets, with a different month on EACH side of the sheet.



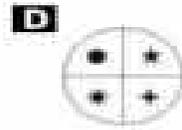
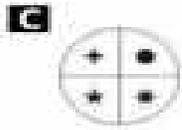
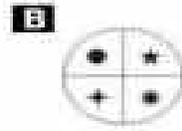
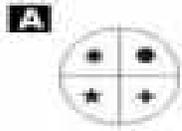
The first 6 months appear in order as the sheets are turned over one by one. The months in the second half of the year are printed on the flip of these sheets in order, but starting from BACK to FRONT . That is, December appears on the flip side of the first month, January. Which month will be on the flip side of the page showing April ?

- A. May B. September C. October D. August

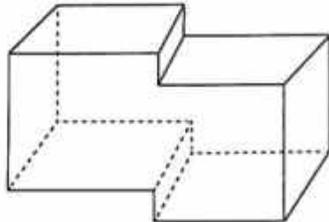
10. Look at the objects.



Which of the following is the same object as the one shown above ? (one of them is the same object, which has just been rotated.)



11. Look at the objects below.



How many faces does the object have?

- A. 8 B. 10 C. 12 D. 14
12. Swagat was trying to solve a problem as shown below.

$$100 \oplus 100$$

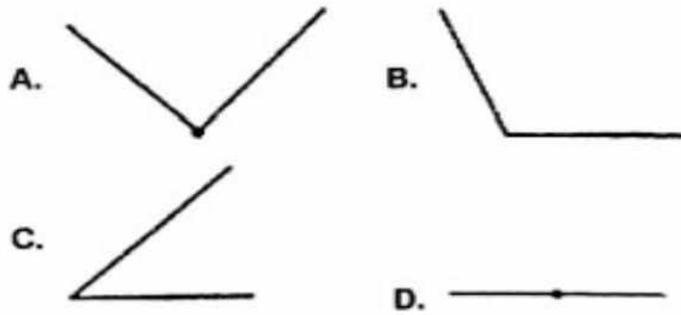
Anik was trying to solve a problem as shown below.

$$50 \oplus 50$$

Which of these is true about the results of the problems if both of them have solved their problems correctly ?

- A. Swagat and Anik both will get 0 as the result.
 B. Swagat and Anik both will get 1 as the result.
 C. Swagat will get 2 as the result and Anik will get 1 as the result.
 D. Swagat will get 100 as the result and Anik will get 50 as the result.

13. Which of the following angles is closest to the right angle ?



14. Rohit spent a total of 50 hours preparing for a cricket match. How many minutes did he spend on his preparation?

- A. 5000 B. 3000 C. 1200 D. 500

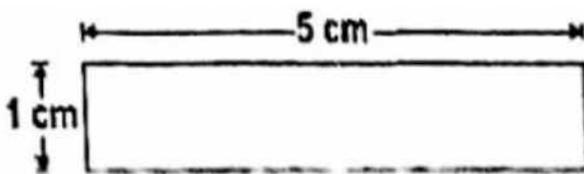
15. Ali bought a few items as shown below. He gave Rs.305 to the shopkeeper and the shopkeeper gave him Rs.50 back. Some ink was dropped on the bill as shown below.

Item	Quantity	Price (in Rs)
Note book	4	160
Pen	10	
Pencil	1	5
Total		

What is the prize of each pen?

- A. 90 B. 16 C. 14 D. 9

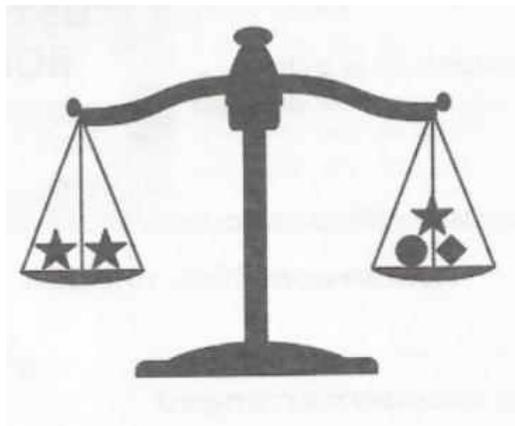
16. Ria has some tiles as shown here.



How many such tiles will she need to make a square of side 5 cm (The tiles must not overlap each other.)

- A. 5 B. 6 C. 10 D. it is not possible to make a square of 5cm

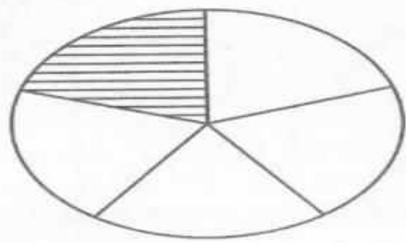
17. Shown below is a balance. The two sides are balanced.



Based on the figure, Which of the following is true ?

- A $\bullet = \blacklozenge + \star$
B $\star = \bullet + \blacklozenge$
C $\blacklozenge = \bullet + \star$
D $\star + \star = \bullet + \blacklozenge$

18. Look at the figure below.



What is the fraction of the shape shaded?

- A. 0.2 B. 0.25 C. 0.1 D. 0.15
19. The sum of 2 numbers is 250. One of them is greater than 150. Which of these is definitely true about the other number?

- A. It is equal to 100.
- B. It has to be less than 100.
- C. It has to be greater than 100.
- D. It has to be a number between 150 and 250.