

UG Question Paper_2023 R2_English

Reading Comprehension

Read the following passage and answer the questions.

In the ship's cockpit we talk about flotsam: things that find their way into the vastness of the seas, and float and float, and finally maybe wash ashore. Below, in the green glow of the navigation station, the captain plots our course: east through the South Atlantic, north to Ascension Island. On board is Marcus Eriksen, an eco-stuntman, who drifts on rafts across seas and down rivers, as well as a serious scientist, commissioning vessels and plying his plankton trawls, collecting data, and speaking about the threat of plastic pollution in the sea. Thanks to environmental gadflies like him, and emotionally affecting documentaries about wildlife deaths from plastic ingestion and entanglement, this is a well-known phenomenon, if still under-studied and vastly underestimated. (1)

For the quantities in play now beggar the human imagination. Dumped or accidentally spilled from ships, blown from landfills, washed down rivers, plastic trash has been amassing since World War II in floating dumps, some of which exceed millions of square miles. Round and round the all-too-durable plastic goes, huge quantities caught up in the great oceanic gyres. These "garbage patches," are out of sight and out of mind, but not entirely inactive. Like all things the sea claims, plastic too suffers a sea change. And the ultimate harm our throw-away effluvia might yet do, to the health of the sea and the human future, nobody knows for sure. (2)

Though Marcus has voyaged to four of the world's five major gyres (the North Pacific, South Pacific, North Atlantic, and Indian Ocean), studying their respective garbage patches, this is his first South Atlantic trip. In fact, no one has ever sailed here specifically to study this gyre's burden of plastic trash. Now he regards the primary research device, a high-speed plankton trawl, with equal parts pride and skepticism, saying, "It might sink. Or flip over." It's a sleek steel box with a keel and wings, trailing a plankton net. He chucks it into the water; the lines snap taut, the trawl, called the Silver Surfer, gulps a mouthful of Atlantic, flips, rises, swoops into the trough, commencing its search for signs that we've entered the South Atlantic gyre. The hunt is on for the Great South Atlantic Garbage Patch. (3)

The secretariat of the Stockholm Convention on Persistent Organic Pollutants has announced the historic addition of nine new toxic chemicals—tongue-twisting giant molecules like alpha hexachlorocyclohexane—to the global danger list. POPs are feared to be accumulating in a carcinogenic brew. For really, the middle of the ocean, outside shipping lanes, could just as well be Mars in terms of how little we know about it. One Australian study had trawled the great gyres and missed 99% of the plastic rubbish. Had they been in the wrong places at the wrong time? Was the plastic sinking? "Indisputably," one scientist concluded, marine animals are eating some if not most of it. What will happen to us when we eat them? (4)

The five major oceanic gyres make up a quarter of the Earth's surface. Underneath the apparent chaos of the world's weather, the gyres turn like clockwork, driven by the sun and the Earth's rotation. A bit of flotsam entering the current off the coast of Brazil might make it all the way to West Africa and then bob on back to where it started in about three years. Or it might catch an eddy and maroon in mid-ocean. At the center of every subtropical gyre is a giant high-pressure zone of fair weather and little or no wind, the dreaded "doldrums" of the age of sail. Things get trapped amid these still waters. (5)

We train our headlamps on our findings: lots of battered little fish and black halobates flies. And, among unidentifiable mucous chunks, bright bits of colorful confetti: particulate plastic pollution. The oceanographer Curtis Ebbesmeyer coined the phrase “garbage patch” in the 1990s, comparing it to “a big animal without a leash.” It sloshes around at the whim of the weather; close to land, it vomits up a load of plastic debris: cigarette lighters, toothbrushes, toys, containers, but mostly minute chips and shards, a horrifying fake plastic “sand” creating a plasticized beach. A wealthy California sailor, Charles Moore, took a shortcut home from Honolulu in 1997. What he saw – nets, towing ropes, Japanese traffic cones, quarts of American-made oil, drums of hazardous chemicals, tires, volleyballs - amazed and appalled him. He travelled for 10 days and never saw a clean stretch of sea. Ever since, he has exhausted his voice, and much of his fortune, telling the world about it. (6)

Adapted from The Terrifying True Story of the Garbage that could Kill the Whole Human Race, by Bucky McMahon, medium.com, Aug 2014.

Selected word meanings:

gyre: a circular or spiral motion or form

gadflies: persistent and annoying insect; here, a persistent person

effluvia: waste by-product

plankton: minute forms of life on the surface of water

The author’s main purpose in the above passage is:

- a) to prove that there are nine new toxic chemicals on the global danger list
- b) to prove that the Silver Surfer trawler invented by Marcus really works
- c) to show that waste has accumulated in the seas in highly dangerous quantities
- d) to show that Charles Moore had the money to travel for 10 days in the waters near Honolulu

Why does the author compare certain parts of the oceans with Mars?

- a) to show that humans have travelled the oceans far more easily than they have travelled to Mars
- b) to discuss the discovery of water on Mars and the possibility of life there
- c) to highlight how little is known about those areas of the sea
- d) to show the similarities between the Silver Surfer and the latest Mars spaceship

Why does the author talk about the “bit of flotsam” in Para 5?

- a) to show that small objects easily float in sea water
- b) to demonstrate that the sea contains only tiny bits of waste matter
- c) to show the interconnectedness but also the randomness of currents
- d) to identify the fair-weather zones where ships can safely sail

While talking to us about pollution in the seas, the author mentions:

- a) Two international agencies and two individuals who have acted out of concern over pollution
- b) Two international agencies and three individuals who have acted out of concern over pollution
- c) An international agency and two individuals who have acted out of concern over pollution
- d) One international agency and three individuals who have acted out of concern over pollution

What does the description “big animal without a leash” tell us about garbage patches?

- a) they are four-legged and carnivorous
- b) we need a license to own them and must buy leashes to take them out
- c) they are large and dangerously out of control
- d) they can easily be tamed for human purposes

Which of the following words or phrases is closest in meaning to the word “navigation” as used in the sentence beginning “Below, in the green glow of the navigation station...”? (Para 1)

- a) drawing a map to be able to guide future travellers
- b) planning to move in a particular route or direction
- c) related to ships or naval activity
- d) required for all anti-pollution steps

Which of the following words is the closest antonym (opposite) of the word “amassing” as used in the phrase “plastic trash has been amassing”? (Para 2)

- a) collecting in huge quantities
- b) dispersing or breaking up
- c) wandering on the current
- d) reappearing on beaches

Which of the following phrases is the closest in meaning to the word “clockwork” as used in the phrase “underneath the apparent chaos of the world’s weather, the gyres turn like clockwork”? (Para 5)

- a) in a disorganized and erratic way
- b) at an alarming speed
- c) having an ability to show the passage of time
- d) with machine-like regularity

Which of the following words or phrases is the closest in meaning to the word “debris” as used in the phrase “close to land, it vomits up a load of plastic debris”? (Para 6)

- a) the remains of something broken down or destroyed
- b) the total waste debited from the world's seas
- c) the results of long-lasting nausea or seasickness
- d) material that can be productively reutilized

“Dumped or accidentally spilled from ships, blown from landfills, washed down rivers, plastic trash has been amassing in floating dumps, some of which exceed millions of square miles.” If this sentence were to be written in the future tense, which of the following would be the correct version?

- a) Dumped or accidentally spilled from ships, blown from landfills, washed down rivers, plastic trash will have been amassing in floating dumps, some of which will exceed millions of square miles.
- b) Dumped or accidentally spilled from ships, blown from landfills, washed down rivers, plastic trash has amassed in floating dumps, some of which has exceeded millions of square miles.
- c) Dumped or accidentally spilled from ships, blown from landfills, washed down rivers, plastic trash will amass in floating dumps, some of which will exceed millions of square miles.
- d) To be dumping or accidentally spilling from ships, blowing from landfills, washing down rivers, plastic trash is to amass in floating dumps, some of which exceeded millions of square miles.

Read the following passage and answer the questions.

It was meant to be a quick trip to the CR Park Market. My mother needed to buy some vermillion and incense sticks for a puja, when she laid her eyes on the *patali gur* strategically placed right outside the shop. She got a kilo packed and got into the car with a big grin on her face, gloating about the great deal she had struck with the shopkeeper for the *gur*. The rest of us were just happy that we were taking the season's first *patali gur* to the house. In Bengali households across the country, this is one of the most-awaited seasons of the whole year, for this is the season when date palm jaggery or *khejurer gur* takes over dessert fare. Come winter, and out come the jars of jaggery. (1)

Jaggery can broadly be classified into two types: one is extracted from sugarcane, which is also delicious, but for Bengalis is second in the jaggery hierarchy. It occupies a lower rung, below nolen gur or new date palm jaggery. Date palm jaggery, made from the sap of the phoenix *sylvestris* palm is further divided into two kinds, *jhola gur* and *patali gur*. *Jhola* is derived from the word *jhola* which in Bengali refers to a kind of liquid. This dense and luminous liquid jaggery is available for an even smaller time window and is used to sweeten a variety of desserts. *Patali gur* is the solidified version that comes in small, brittle cakes. Sweets made with date jaggery of both kinds are usually made around the festive time of Sankranti. (2)

Around the 4th century BC, the Siuli artisans of Pundra Bardhan (now Bogra) in Bengal started extracting the sap of the date palm tree to sell at weekly local markets. The jaggery made with this sap became so popular that Pundra Bardhan came to be known as Gour (after *gur*). Records of the time detail the tedious nature of the work. The Siulis would scale the thorny date palms at night to tap them and cut the flower clusters. They would then hang an earthen container at the end of the branch to collect the sap. They had to be wary of the temperature and the timing,

as the minute the climate turned humid or rainy, the sap would begin to turn turbid, making it unfit to eat. Similarly, even slight exposure to the sun's heat would cause the sap to ferment and turn into an alcoholic form. It is said that their elders and experienced jaggery makers could test the purity of the jaggery simply by looking at its consistency, what modern science terms 'Brix value'. This value is indicative of the amount of sugar present in the solution and should be between 118 and 120 percent for the perfect jaggery. (3)

Most food scientists agree that jaggery is a healthy substitute for sugar. A pinch of jaggery after a meal or added to your food stimulates the production of digestive enzymes. Another advantage of jaggery is its iron content, which promotes the production of haemoglobin and helps those battling anaemia. A study titled *The Benefits of Indian Jaggery Over Sugar on Human Health* found that due to the micronutrient content of jaggery raises its antitoxic and anticarcinogenic efficacy. Studies also suggest that the high manganese content in jaggery is beneficial for us as it improves signalling among neurons and can prevent brain degeneration. Another study titled *Review on Recent Advances in Value Addition of Jaggery Based Products* explores the health benefits of jaggery and claims that it contains longer chains of sucrose in comparison to sugar and is therefore digested more slowly by the body. Thus, energy release is also slow, ensuring a release over a long period of time. This ensures that blood sugar levels do not shoot up rapidly. (4)

Adapted from What Makes 'Nolen Gur' The Queen of Jaggery In Bengal? by Sushmita Sengupta, Slurp, November 2022 and Origins of Nolen Gur, A Healthy Winter Fave Behind Many Perfect Bengali Desserts by Krystelle Dsouza, The Better India, November 2022

Which of the following statements is true according to the above passage?

- a) All Indians prefer date palm jaggery to the sugarcane version.
- b) People in the CR Park area in Delhi always buy jaggery when they go shopping.
- c) Between sugarcane and date palm jaggery Bengalis prefer the latter.
- d) Date palm jaggery is the best jaggery made anywhere in the world.

Which of the following statements is true according to the above passage?

- a) Jhola gur and patali gur are two different forms of the same kind of jaggery.
- b) Jhola gur is made in the summer while patali gur is made in the winter.
- c) Patali gur is a liquid jaggery whereas jhola gur is a solid jaggery.
- d) Patali gur is made from date palm sap while jhola gur is made from sugarcane juice.

Which of the following attitudes does the author of the above passage reveal?

- a) Impartiality towards jaggery varieties since all Indians use jaggery as a sweetener
- b) A bias towards a particular kind of jaggery, likely based on the food habits in her home state
- c) Disapproval of the quantity of sweets that Bengalis customarily consume
- d) Concern for the fall in jaggery production in the last three years

According to the passage, which aspects of the jaggery production process need special attention?

- a) The special puja to be conducted according to traditional rites at the start of the jaggery season
- b) Collecting the date palm flowers at the end of branches at the right time of day and the right temperature, while also avoiding atmospheric dampness as far as possible
- c) Making sure the jaggery reaches the weekly market while it is still fresh and edible
- d) Collecting the sap of the date palm at the right time of day and the right temperature, while also avoiding atmospheric dampness as far as possible

Why does the author of the passage mention the two articles named in the final paragraph?

- a) To prove that jaggery should be exported to countries that do not grow sugarcane or date palms
- b) To claim the comparative benefits of the shorter sucrose chains in sugar
- c) To show that jaggery has many health benefits
- d) To show that jaggery prices have been rising as people have come to realise its benefits

Which of the following words or phrases is the closest in meaning to the word “strategically” as used in the sentence ending “strategically placed right outside the shop” (Para 1)?

- a) sensibly organized on shelves
- b) required to keep jaggery from spoiling
- c) planned or designed for a specific result
- d) unnecessary for the purpose intended

Which of the following words is the closest antonym (opposite) of the word “gloating” as used in the sentence ending “gloating about the great deal she had struck with the shopkeeper for the *gur*” (Para 1)?

- a) lamenting
- b) congratulating
- c) affording
- d) bargaining

Which of the following words is the closest in meaning to the word “tedious” as used in the sentence “Records of the time detail the tedious nature of the work”. (Para 3)?

- a) dangerous
- b) boring
- c) skilled
- d) simple

Which of the following words or phrases is the closest antonym (opposite) of the word “degeneration” as used in the sentence ending “can prevent brain degeneration” (Para 4)?

- a) healthy growth
- b) abnormal function
- c) alarming medical reports
- d) pertaining to the generation after Gen C

“The jaggery made with this sap became so popular that Pundra Bardhan came to be known as Gour.” If this sentence were to be written in the future tense, which of the following would be the closest correct version?

- a) The jaggery made with this sap will become so popular that Pundra Bardhan will come to be known as Gour.
- b) The jaggery made with this sap is becoming so popular that Pundra Bardhan is now to be known as Gour.
- c) The jaggery made with this sap became so popular that Pundra Bardhan would come to be known as Gour.
- d) The jaggery made with this sap becomes so popular that Pundra Bardhan will be coming to be known as Gour.

Quantitative reasoning

A manufacturing company had 280 sales outlets across the country in the year 2019. It closed down 70 outlets by the year 2021. The percentage of outlets closed down during the years 2019-2021 is

- a) 25%
- b) 20%
- c) 75%
- d) 33.33%

Madikeri and Mysuru are 120 kms away. A car started from Mysuru at 10 AM towards Madikeri and travelled at a speed varying between 40kmph and 60kmph. If the car did not stop during the travel, then the car reached

- a) before 11 AM
- b) between 12 noon and 1 PM
- c) between 11 AM and 12 noon
- d) after 1 PM

Two sides of a rectangle are in the ratio 1:2 and their perimeter is 84 units. Then the smallest of the two sides measures

- a) 12 units
- b) 14 units

- c) 18 units
- d) 24 units

A shopkeeper sells a mobile phone at a profit of 35%. The cost price of the mobile phone is Rs. 4000. What is the price at which the phone was sold?

- a) Rs 1400
- b) Rs 5000
- c) Rs 5400
- d) Rs 5350

A quiz has ten questions with 3 points awarded for each correct answer, 1 mark deducted for each wrong answer, and 0 for each question omitted. Madhu scored 22 points. How many questions did she omit?

- a) 0
- b) 1
- c) 2
- d) 3

The following table lists the year of birth and year of death of a few prime ministers of India.

Name	Year of birth	Year of death
Jawaharlal Nehru	1889	1964
Lal Bahadur Shastri	1904	1966
Indira Gandhi	1917	1984
Morarji Desai	1896	1995

Which of the following is the arrangement of names in the increasing (ascending) order of numbers of years they lived?

- a) Lal Bahadur Shastri, Indira Gandhi, Jawaharlal Nehru, Morarji Desai.
- b) Jawaharlal Nehru, Lal Bahadur Shastri, Indira Gandhi, Morarji Desai.
- c) Jawaharlal Nehru, Morarji Desai, Lal Bahadur Shastri, Indira Gandhi.
- d) Indira Gandhi, Lal Bahadur Shastri, Morarji Desai, Jawaharlal Nehru.

It takes 20 minutes to fully charge (100%) a mobile phone from 0%. Assume that the charging happens at a uniform rate. How much is the phone's battery charged (in percentage) if it requires 5 more minutes of charging to the full battery?

- a) 20%
- b) 25%

- c) 75%
- d) 80%

Suman buys 64 packets of pencils each having 25 pencils. He decides to sell these pencils as packets of 8 pencils each. Then how many packets will he need to prepare?

- a) 100
- b) 150
- c) 250
- d) 200

Meena borrowed a loan of Rs. 1,200 with simple interest for as many years as the rate of interest. If the interest she paid at the end of the loan period is Rs 432, then what was the rate of interest per annum?

- a) 3.6%
- b) 4.5%
- c) 6%
- d) 5%

The areas of the two squares are 100 square meters and 64 square meters respectively. What is the ratio of the sides of the larger square to the side of the smaller square?

- a) 5:2
- b) 4:3
- c) 5:4
- d) 1:2

A certain university has only first-year and second-year students. Every student lives either in hostels on campus or in houses just outside campus. All the students living in the campus hostels are first-year students. Every student who lives in the houses outside campus has a pet dog.

Based only on the above information, which of the following statements **must** be true?

- a) Some students who live in the houses outside campus do not have pet dogs.
- b) All second-year students have pet dogs.
- c) No first-year student lives in the houses outside campus.
- d) Some second-year students live in the hostels on campus.

In a certain language, “da” either means “yes” or “no”, but you do not know which. “Ja” means the opposite of “da”. You ask a speaker of the language the question, “Does ‘da’ mean ‘no’?” Assuming she understood your question and answers truthfully, what will her response be?

- a) Da

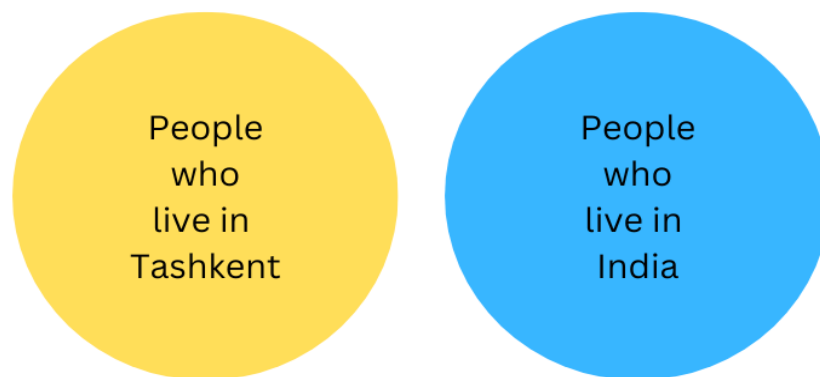
- b) Ja
- c) Neither “da” nor “ja”
- d) Not enough information to determine the answer

In a certain city, 80% of the residents can speak Kannada, 50% can speak Hindi and 40% can speak English. 80% of the residents who can speak Hindi can also speak English.

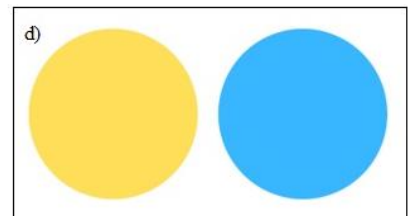
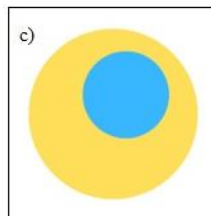
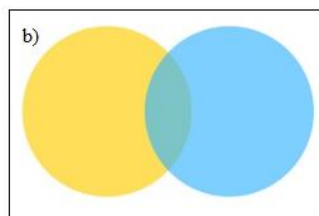
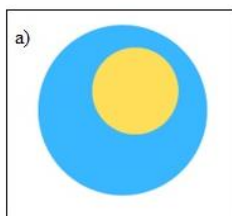
Which of the following statements must be true?

- a) Some residents of the city can speak all three languages.
- b) Every resident of the city can speak all three languages.
- c) More than 20% of the city’s residents can speak neither Kannada nor English.
- d) The majority of the city’s residents can speak two or more languages.

Tashkent is the capital city of the country Uzbekistan. We will use a blue circle to stand for all the people who live in India, and a yellow circle to stand for all the people who live in Tashkent.



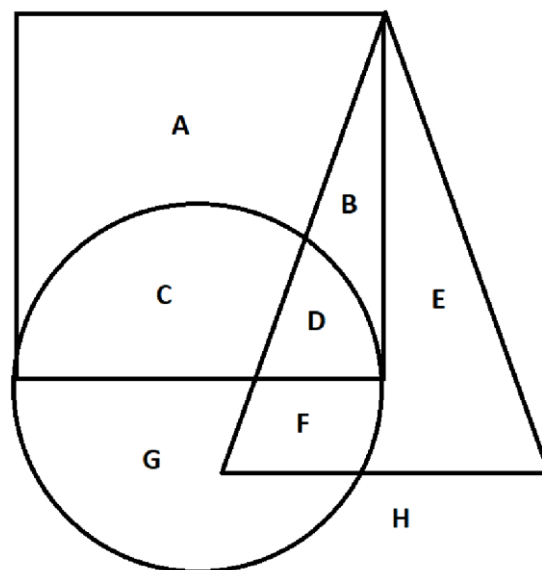
Which of the following pictures best shows the relationship between these two circles?



We will use a triangle to stand for all houses that have a balcony. We will use a square to stand for all houses with more than one bedroom. We will use a circle to stand for all houses that have a garden.



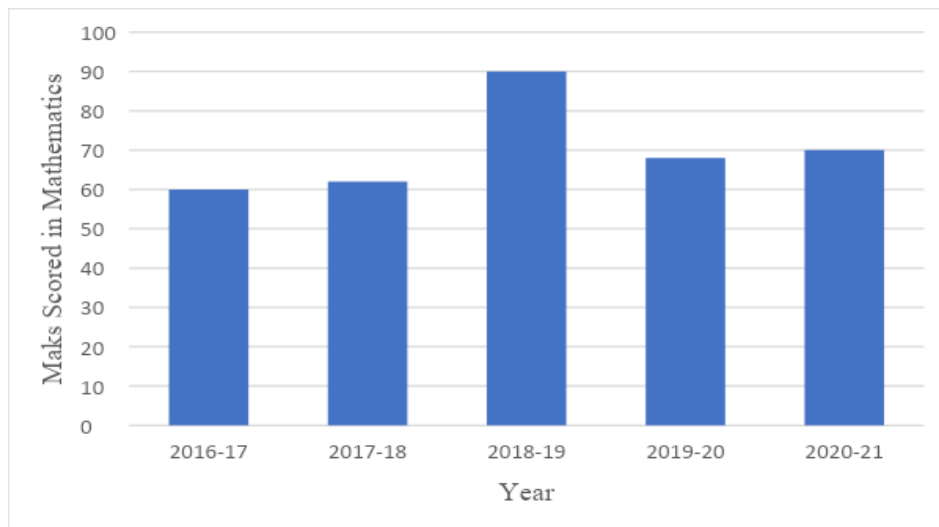
Look at the diagram below, in which different regions have been labelled with different letters.



Saira lives in a house with three bedrooms, no garden and no balcony. In which region of the diagram will we find Saira's house?

- a) H
- b) E
- c) A
- d) D

The following graph shows the marks scored by a student over five years in Mathematics.



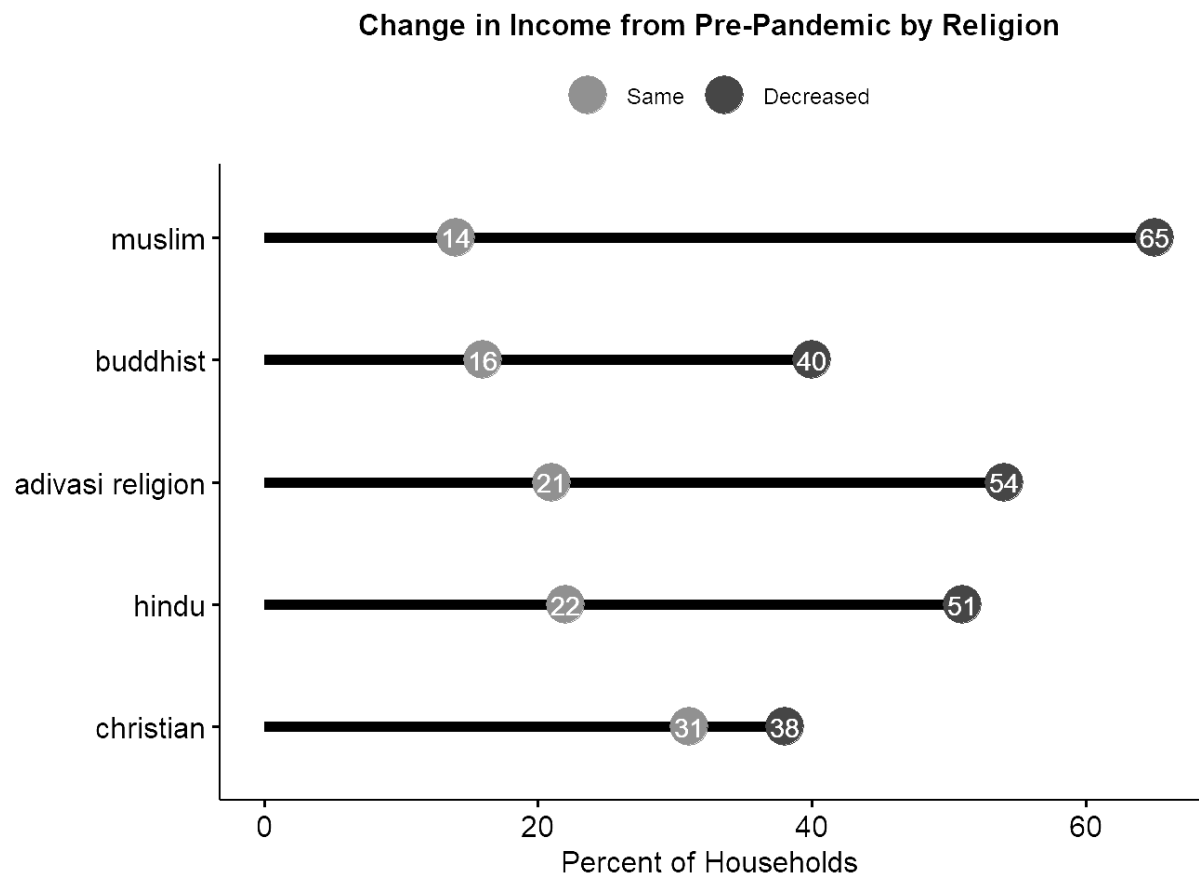
In which year does the student show maximum improvement compared to the previous year?

- a) 2016-17
- b) 2017-18
- c) 2018-19
- d) 2019-20

If the student was in Class 5 (or Standard 5) in 2016-17, and did not fail in any year, then what did the student score in Maths in Class 8?

- a) 70
- b) 68
- c) 62
- d) 60

The graph below shows how the income of households belonging to different religions changed after the pandemic compared to the pre-pandemic year. There were 3 possibilities – household income in the year after the pandemic either increased, or decreased, or remained the same compared to the pre-pandemic year. The graph only shows the percentage of households of each religion whose income either decreased or remained the same. What is not shown in the graph is the percentage of households whose incomes increased in the year after the pandemic compared to the pre-pandemic year. The total percentage of households is 100 for each religious category. The vertical axis shows the religion of the households and the horizontal axis shows the percentage of households.



Which religious group of households had the highest percentage of respondents saying that their incomes had reduced post-pandemic compared to pre-pandemic?

- a) Muslim
- b) Hindu
- c) Adivasi religion
- d) Buddhist

Among all the depicted religious categories, which religious category had the highest percentage of households saying that their incomes increased in the year after the pandemic compared to the pre-pandemic year.

- a) Muslims
- b) Hindus
- c) Buddhists
- d) Christians

The total number of households surveyed for this data was 6625. If 80% of the households were Hindu, what is the number of Hindu households whose income remained the same?

- a) 2703
- b) 1431
- c) 5300

d) 1166

Descriptive Question 1

He was a pale boy, with blue-grey eyes and fair hair; his face was rough and marked, and the lower lip hung loose and heavy. He had his hands in his pockets and his head down, which was the way he always walked, and which gave him a deceptively tired appearance. He was a lazy but not a tired person.

He liked the rain as it flecked his face, he liked the smell and the freshness; he did not look at his surroundings or notice them—his mind, as usual, was very far away—but he felt their atmosphere, and he smiled.

His mind was so very far away that it was a few minutes before he noticed the swish of bicycle wheels beside him. The cyclist did not pass the boy, but rode beside him, studying him, taking in every visible detail, the bare head, the open-necked shirt, the flannel trousers, the sandals, the thick hide belt round his waist.

(Extract from *The Room on the Roof* by Ruskin Bond)

Question

The extract describes a boy, very carefully, telling the reader all about how he looks and behaves. Describe yourself or someone you know in similar detail. (Word count: 150-200)

Your writing will be evaluated on

- including necessary details
- a clear structure, and
- using language with clarity and appropriateness

Descriptive Question 2

Read the following passage carefully and answer the questions following it.

“Some people say that it is wrong to kill any animal. But everyone kills mosquitoes, flies, and other insects that can carry disease. So we cannot say that killing animals is wrong. We sometimes have to kill living creatures in the interests of human beings.”

Questions

- In one sentence, write the conclusion of the passage above.**
- Do you agree or disagree with this conclusion? Write 150-200 words giving reasons for your agreement or disagreement.**

You will be evaluated for:

- correctly identifying the conclusion
- taking a clear stance on the conclusion, and
- arguing for your stance