

OPEN TEXT - BASED ASSESSMENT ANNUAL EXAMINATION 2014-15



MATHEMATICS (041) Class-IX

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**CENTRAL BOARD OF
SECONDARY EDUCATION**

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OPEN TEXT MATERIAL

1. Theme: Atithidevo Bhavah

Abstract:

Atithidevo Bhavah is a verse in Sanskrit. It means to consider the guest as god. This statement is drawn from an ancient scripture which has been the ethos of Indian culture. Recently, this verse has found its place in the tagline of Ministry of Tourism in order to improve the treatment of the foreign tourists visiting the country due to the popularity the country has gained in the recent times as a popular and favorite tourist destination.

The concept of Atithidevo bhav is deep rooted in our Indian culture and is carried forward with same spirit as it used to in ancient times. The text gives an insight into the number of foreign tourists arrivals in India during different seasons which is supported with data. The concept also gets reinforced when the statistics show that tourists of all age groups from across the globe love to visit India.

India is a beautiful country rich in diversity. The majestic Himalayas, the sparkling ocean, the dry desert, the dancing river, the enticing lagoons or the magical back waters, all appeal to nature lovers. People come from far off countries to a new beautiful vision of glory of nature. Its rich history, cultural and geographical diversity makes it an international tourism attraction. There are many places which attract the interest of the tourists in India. Many foreign tourists from different parts of the world come to explore the natural and the heritage beauty of this Nation. Tourists come for different purposes such as weddings, shopping, tourism, business, education, adventure, family reunions, etc.

Seasonality in Foreign Tourist Arrivals in India

India experiences three major seasons - Winter, Summer and Monsoon.

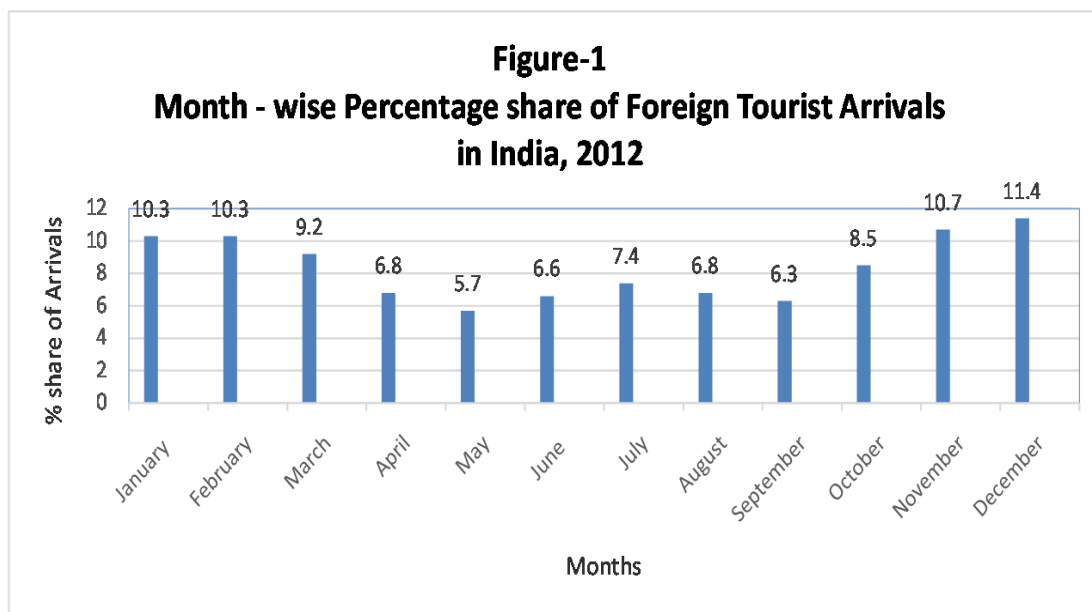
In 2011 over six lakh tourists had visited various tourist destinations such as Agra, Jaipur, Udaipur, Kashmir valley, Goa, Mysore and Thiruvanantha-puram in the winter season.

In 2012, the minimum number of foreign tourists visited India during the month of May and maximum during the months of December.





The following graph clearly shows that the highest FTAs in India were in October-December and January-March during 2012.



India is ranked as the 38th country in the world in terms of foreign tourist arrivals. The most represented countries are the United Kingdom and the United States. In 2012 Maharashtra, Tamil Nadu and Delhi were the most popular states for foreign tourists. Domestic tourists visited the states of Uttar Pradesh, Andhra Pradesh and Tamil Nadu most frequently.



Delhi, Mumbai, Chennai and Agra have been the four most visited cities of India by foreign tourists during the year 2012. Worldwide, Chennai is ranked 41 by the number of foreign tourists, while Delhi is ranked at 50, Mumbai at 57, Agra at 65 and Kolkata at 99.






STATISTICS, SURVEYS AND STUDIES

Foreign Tourist Arrivals and Foreign Exchange Earnings during the years 2000-2011

Year	Foreign Tourist Arrivals (in nos.)	Percentage Change Over Previous Year	Foreign Exchange Earnings (Rs. Crore)	Percentage Change Over Previous Year	Foreign Exchange Earnings (Million US\$)	Percentage Change Over Previous Year
2000	2649378	6.7	15626	20.6	3460	15.0
2001	2537282	-4.2	15083	-3.5	3198	(-)7.6
2002	2384364	-6.0	15064	-0.1	3103	(-)3.0
2003	2726214	14.3	20729	37.6	4463	43.8
2004	3457477	26.8	27944	34.8	6170	38.2
2005	3918610	13.3	33123	18.5	7493	21.4
2006	4447167	13.5	39025	17.8	8634	15.2
2007	5081504	14.3	44360	13.7	10729	24.3
2008	5282603	4.0	51294*	15.6	11832*	10.3
2009	5167699	-2.2	54960 #	7.1	11394 #	(-) 3.7
2010	5775692	11.8	64889 #	18.1	14193 #	24.6
2011	6290319	8.9	77591 #	19.6	16564 #	16.7

Advance Estimates * Revised Estimates

Table-1: Annual Report 2011-12, Ministry of Tourism, Government of India

Ideal Wonders of India		
		
Taj Mahal (also "the Taj"), built by the Mughal emperor Shah Jahan in memory of his queen Mumtaz Mahal is the pinnacle of Mughal architecture.	The Harmandir Sahib (The abode of God) Golden Temple	Tawang Monestry located at Tawang in Arunachal Pradesh was founded by Merak Lama Lodre Gyatso in the year 1680-81. The name Tawang means Chosen Horse.



Foreign Tourists Arrivals (FTAs) in India

It can be observed clearly that the FTAs in India have been increasing from all regions during the year 2012. The growth was maximum from Eastern Europe followed by Africa, East Asia, Australia, Central and South America.

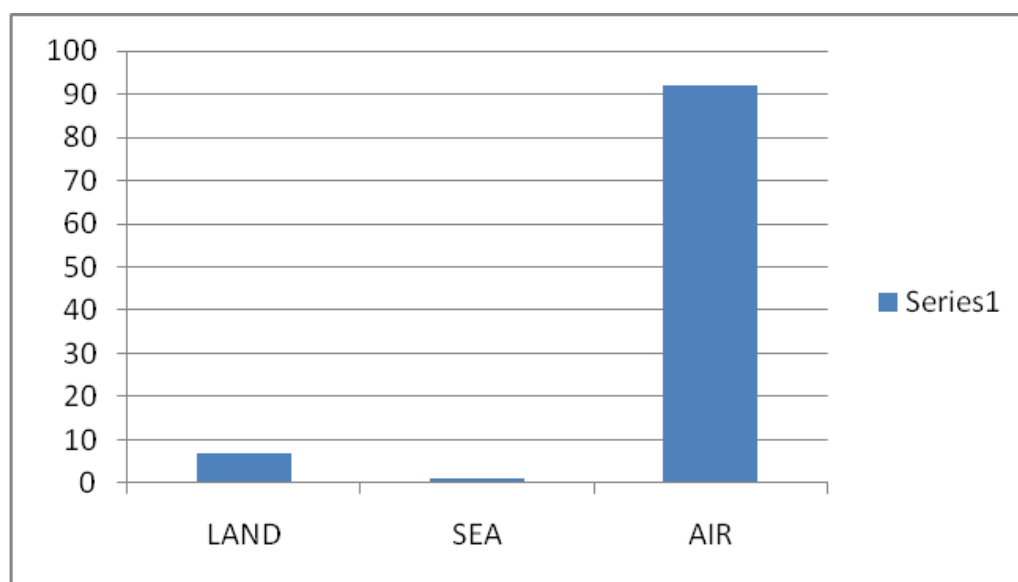
Table-2: Number of FTAs from different regions of the world (in lakhs approximately)

Region/ Country	Eastern Europe	Africa	East Asia	Australia	Central and South America
2011	27	23	47	23	6
2012	31	26	53	24	7

Modes of Travel of Foreign Tourists Arrivals (FTAs) in India

Travel by 'air' has been found to be the most preferred mode of transport. In 2012, out of the 6.58 million foreign tourist arrivals in India, majority arrived by air(92%), followed by land(7 %) and sea(1%). Arrivals through land routes comprised tourists mainly from Bangladesh and Pakistan.

Figure-2: Arrival of Foreign Tourists in India.



Air travel has been the most preferred mode of travel for the FTAs over the years, accounting for above 80% share in each year during this period. During last three years from 2010 onwards, the percentage of FTAs travelling to India by air has remained more than 90%. The share of arrivals through land check-post has been above 10% during 2001 to 2008; however, it has been gradually declining over the last 3 years. Arrivals through sea routes remain less than 1% from 1996 to 2012.



Age Distribution of FTAs in India

Table-3: The percentage distribution of FTAs in India according to age groups during 1996-2012:

Age – group (in years)	0–15	15–25	25–35	35–45	45–55	55–65	65 & above
% Distribution by Age- Group (in years)	11	8	16	21	20	14	10

During the year 2012, sex-wise distribution of the FTAs comprises of 58.7% males and 41.3% females.

The government's proposal to infuse over Rs 1,000 crore in developing India as an attractive tourism destination is being seen as a window to draw more foreign tourists and foreign exchange, besides enhancing air connectivity and development of heritage sites within the country.

Now one can easily guess why Max Mueller has said these lines about India-

"If we were to look over the whole world to find out the country most richly endowed with all the wealth, power and beauty that nature can bestow in some parts, a very paradise on earth, I should point to India."

Such is our India. It is undoubtedly a paradise for the tourists.

Sample Questions

1. Prepare a histogram on the percentage distribution of Foreign Tourists Arrival in India according to age groups during 1996 – 2012 for class size 10 (using Table 3). (3)
2. On the basis of the given bar graph on month – wise percentage share of FTAs in India, answer the following: (3)
 - a) Which season has the maximum number of FTAs in India?
 - b) Which month has the minimum number of FTAs in India? What according to you could be the reason for less visitors in this particular month?
 - c) Find the mean percentage of foreign visitors in the months April to September?
3. Government proposes to sanction Rs. 1000 crores for development of tourism industry in India. Which five areas could be taken into consideration and in what percentages? Justify the distribution and represent through a bar graph. (4)

Marking Scheme

1. Drawing of bar graph (2)
Labeling, scale and heading (1)



2.
 - (a) December (1)
 - (b) May, due to extreme heat of summer (1)
 - (c) 6.6% (1)
 3. Five areas : Infrastructure: Rail, road and air network (2)
 - : Hotel and hospitality - world class amenities
 - : Development of World Heritage sites
 - : Empowerment of guides and local people of the tourist places
 - : Advertisement
- Justification and drawing of bar graph (2)



OPEN TEXT MATERIAL

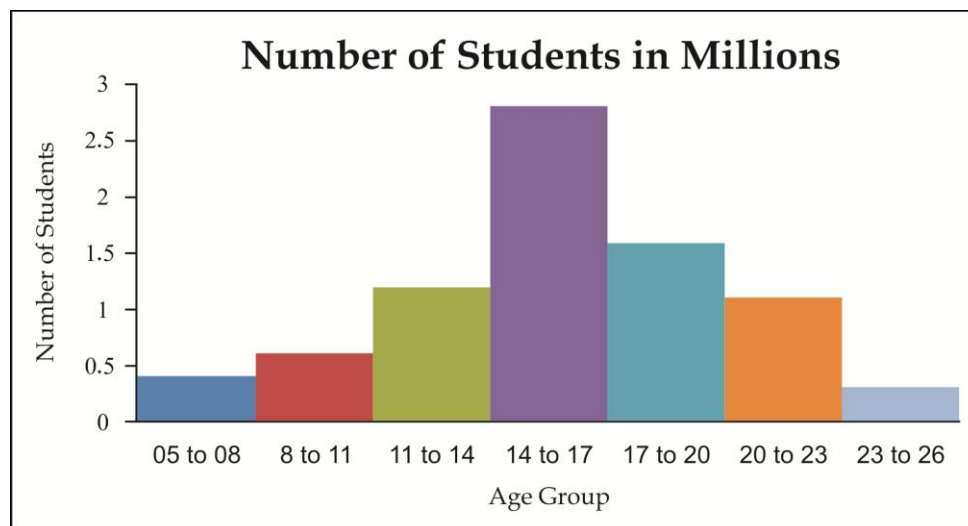
1. Theme: *Empower to Learn*

Abstract:

Harshit heard of the social networking sites and started exploring them on the internet. To his surprise he came across various educational as well as social networking sites that give innovative and improved ways of learning. He gradually got prone to the facilities these platforms offer which broadened his perspectives. He realised that this advancement in social networking platform is providing him with much better options to engage with his contemporaries, enhance his skills and access a wide variety of academic tools and resources which most definitely add up to his convenience.

Harshit learnt about LEARNOUT, a free social learning network for university and school students. It offers a platform for its users where they can engage in activities like sharing study related materials, counselling or simply connecting through a vast network of existing users from around the world. Within a small time span of two years, more than 80,00,000 students registered for the website and they use the website on daily basis. The distribution of the students in different age groups was graphically presented and he got inspired as he thought to himself that maximum number of children of his age is gaining from this site.

Figure 1: Histogram showing the number of students using learnout in different age groups



The website offers user generated contents in 7 different languages including Italian, English, Spanish, Polish, Russian, Serbian and Portuguese. The website is directly operated from its respective regional head offices thereby providing a direct approach to the users. LEARNOUT also has its free application available for all android devices. The website also has a dedicated 24/7 support team to assist the students in their matters. He surveyed a number of people and recorded his findings on the percentage of users using this site in different languages:



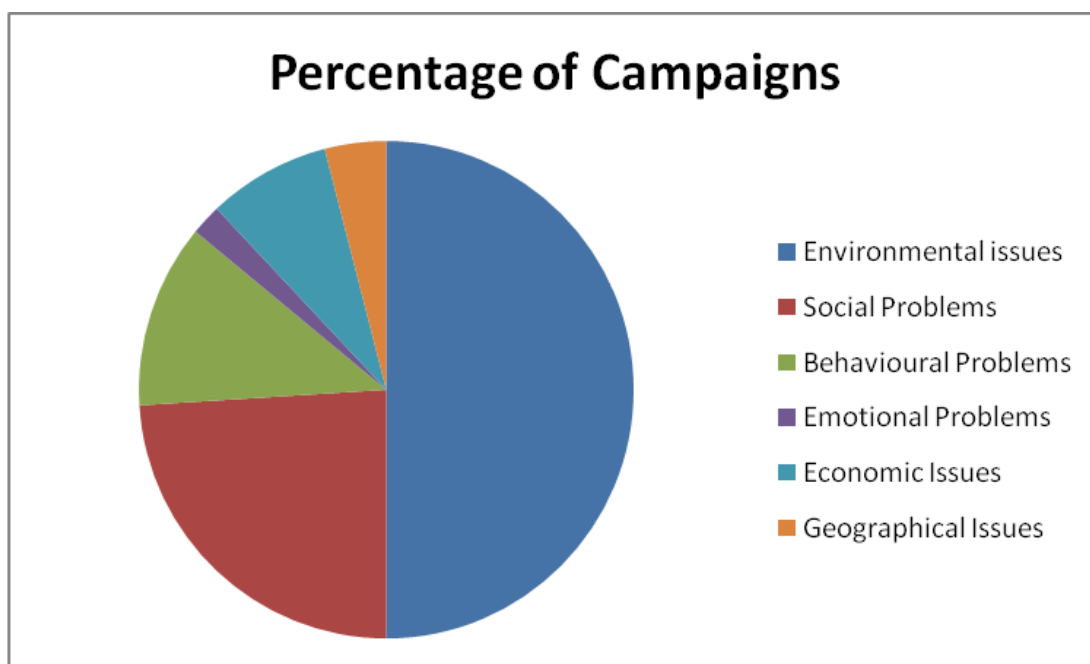
Table 1: The percentage of users in different languages of LEARNOUT is given in the table below:

Language	Italian	English	Spanish	Polish	Russian	Serbian	Portuguese
Percentage of users	11	57	6	4	10	9	3

He also discovered a site named TWOWAY which provides its students with a different approach towards studies. It offers an interactive way of studying where students get to create and animate flashcards. The website currently has about 1 million study content authored by the students. The website also conducts different quizzical campaigns for the students and tracks the progress of its users. The issues on which the campaigns were conducted are presented in the form of pie chart.

Harshit also got a platform to spread awareness of the issues which he has to record in his project work given by his teacher. He could collect the data globally and interpret it from different perspectives.

Figure 2: The pie chart shows the campaigns conducted on TWOWAY in different subjects.



Mathematics was troubling him and he needed a special assistance in various concepts. He received many resource materials to gain more knowledge and achieved higher level of learning. The site named TROUBLE BUBBLE was the answer to his queries. TROUBLE BUBBLE offers a very interactive way to the students looking for answers to the distressing questions. They can ask questions directly from the academic experts through their vast network. The following data shows the number of questions asked by students between 2:00pm to 9:00pm.



Table 2: The table below shows the average number of questions asked at different hours of the day on TROUBLE BUBBLE.

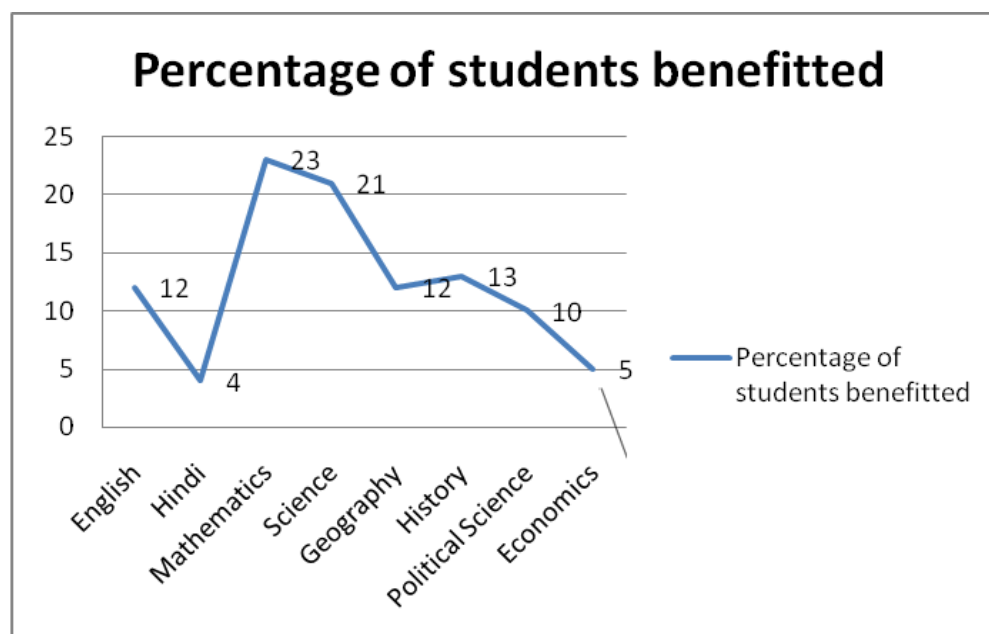
Time	2 to 3pm	3 to 4pm	4 to 5pm	5 to 6pm	6 to 7pm	7 to 8pm	8 to 9pm
Number of questions	180	270	360	440	520	300	190

Harshit was pleased to know that he has the facility to get immediate answers to his queries through this site.

SUPERB, another educational networking site, offers its users with a unique way to have interaction. It builds a strong connection between students and renowned teachers from around the world. SUPERB offers a number of free tools and services to the teachers, which literally transforms the way of teaching and helps in the provision of superior quality of services to its users. The website is suitable for students of all ages, whether be a student of middle school or an undergraduate, SUPERB has stored a lot more for its users to achieve their educational goals.

The advancements in technology proved to be beneficial for Harshit. With social networking platforms advancing, they are playing their role to facilitate the students with their needs and benefit them to achieve their goals. The given frequency polygon displayed maximum benefit taken by the students from this site. It was an eye opener for Harshit as he wanted extended learning in all the subjects. Being a smart boy, he always used to check data before taking any decision.

Figure 3: Frequency Polygon showing the percentage of campaigns conducted in different subjects





Harshit was empowered by these educational networking sites as they transformed him into a global citizen. He received input from across the world from different teachers who had shared the best of the ways to share their learning through innovative ideas of constructing knowledge with the students accessing their sites. Thus, technology supported Harshit to make the best use of time and energy to equip him to learn at his own pace but with global input in his learning process.

Sample Questions

- Q.1. Justify giving examples, why Harshit is a smart boy in using technology for learning. (3)
- Q.2. Prepare a pie chart to represent the data given in table 1. (3)
- Q.3. Represent the frequency polygon as a histogram for figure 3. (4)

Marking Scheme

1. (a) Better options to engage with his contemporaries, enhance his skills and access a wide variety of academic tools (1)
- (b) Resources most definitely add up to his convenience. (1)
- (c) It is a fun filled and interesting way of learning. (1)
2. Drawing of pie chart (2)
- Labeling (1)
3. Conversion into class size (2)
- Drawing a histogram (2)