


SIKSHYA BARTA

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Education Department launches exclusive Career Information Portal

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Education Department launches exclusive Career Information Portal

JAMMU, FEBRUARY 7: As a part of its new initiative to provide guidance on career advancement and counseling to the students, the Education Department today launched an exclusive web portal with updated information on job openings, admissions, scholarships, entrance tests and other career opportunities for the youth within and outside the state.

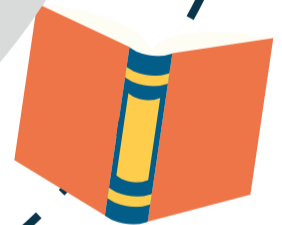
The web portal was launched by Minister for Education, Mr Naeem Akhtar here this morning. Legislator, Syed Mohammad Altaf Bukhari, Principal Secretary School Education, Shalin Kabra, Commissioner Secretary Higher Education, Dr Asgar Hassan Samoon, State Project Director for RMSA/SSA, Saugat Biswas, Director School Education, Jammu, Ms Babila Rakwal and other officers of the Education Department were also present. The career information portal - www.jkkn.co.in/cip.php - is available on Jammu and Kashmir Knowledge Network (JKKN) Website.

Speaking on the occasion, the Minister said that the new web portal will make available all the career related information to the youth including job opening, admissions, entrance tests, examinations, scholarships etc at single stop. "It will also provide easy access to notifications regarding various exams, government and other recruitments, important dates for filling up the forms and required syllabus for the given exams," he said and added that most of the times the youth in remote areas and villages of the state don't have access to such information. "They are either unaware or they miss important dates for filling up the forms," he said.

The Minister said that information regarding various national and international fellowships, institutes which fund education abroad, foreign education opportunities, corporate sector job openings shall also be provided on this portal.

The Minister said that in its future endeavor, the Department would bring employers and employees together on this user-friendly platform. He said the website would offer the State's youth an opportunity not only to find jobs suited to their interests and capabilities, but also create resumes, and submit applications online. "Once registered, the portal will keep them updated on the career opportunities and vacancies free of cost. Employers can readily access their resumes, find suitable candidates, and the portal will facilitate direct communication with them," he said.

The website has been developed and designed by Vikrant Singh, from Doda, who is a part of JKKN team, which is headed by Mayur Khaire, Prime Minister's Rural Development Fellow.



DIVISIONAL COMMISSIONER CONVEYS MEETING

Reviews arrangements for forthcoming JKSSB exams



Srinagar, Feb 07: In Connection with forthcoming written examination for the J&K Service Selection Board (JKSSB) graduate level posts, the Divisional Commissioner, Kashmir, Baseer Ahmad Khan, convened a meeting here today. Chairperson JKSSB, Sarita Chauhan, SSP Srinagar and Joint Directors of Education and Technical Education Departments were present in the meeting, while as Deputy Commissioners of all valley districts participated in the meeting through video conference.

The meeting discussed various issues to ensure fair and smooth conduct of the exams besides a foolproof arrangement are made in order to conduct exams successfully.

The Div Com was informed that out of the total 78,726 candidates across the State about 37,114 candidates from Kashmir Division are going to appear for the recruitment of 697 posts advertised by the Board vide notification numbers 4, 5 and 6 of 2015, who have been issued roll numbers.

Cluster Universities to mark new beginning in JK's academic scenario: Naeem Akhtar

GGM Science College Jammu, SP College Srinagar to come up as centres of excellence in science teaching

Jammu, Feb: Minister for Education, Naeem Akhtar today said the Government Gandhi Memorial Science College Jammu and Sri Pratap College, Srinagar will come up as centres of excellence in science teaching and learning as affiliated colleges of Cluster University Jammu and Cluster University Srinagar.

"Both these heritage colleges would be transformed into premier institutes dedicated to research and teaching in basic sciences as affiliated colleges of the new Cluster Universities which will mark a new beginning in J&K's academic scenario," Akhtar said during his visit to the MAM College here, which is an affiliate college of Cluster University Jammu.

Vice-Chancellor Cluster University Jammu, Anju Bhasin, Secretary J&K State Sports Council, Waheed-ur-Rehman Parra, faculty of MAM College and other officials of the Education Department accompanied the Minister.

He said the faculty and students of GGM Science College Jammu erstwhile Prince of Wales College and SP College Srinagar will be linked through a collaborative educational network with a variety of instructional development

activities. "Besides upgrading existing courses in basic sciences with most up-to-date curriculum, these Colleges will offer other integrated courses in subjects like economics, humanities, cultural studies and sports sciences," he said and added that such innovative courses will offer the students a wide range of career opportunities besides honing their talent in scientific research. The Minister said that these Colleges, as a part of the Cluster Universities, shall have the flexibility of offering five-year integrated Masters programme in the Basic Sciences for students who have completed 10+2 schooling as also post-Masters doctorate programmes. "Apart from classroom teaching, student skills need to be built in areas such as scientific inquiry, problem solving, communication skills, computational sciences, electronics and instrumentation and workshop practices," he said and added that the latest course modules in science can be worked out with institutions of repute like BARC, ISRO, CSIR, IISC and others.

Akhtar also called for starting internship programmes for the graduates with specific focus on local economic potential and

employment avenues. "Similarly, courses can be started in Liberal Arts and Kashmir Studies as a part of the Humanities stream," he said.

The Minister said the requisite infrastructure like laboratories, libraries, digital classrooms and other facilities would be developed in these Colleges for the purpose. "We have to move away from the tradition of educating our children for the sake of it. We have to facilitate them to pursue their goals and develop the creative courage to make a difference in the world," he said and added that a modern, flexible, integrated and seamless curriculum has to be developed that places considerable emphasis on practical training and development of analytical and problem-solving skills among the students in addition to formal learning.

Secretary Sports Council, Waheed-ur-Rehman Parra, said the Sports Council would extend all possible support to the College administrations in building the requisite sports infrastructure and curriculum for Sports Studies.

Pertinently, the Cluster Universities have been established

»» Cont. Cluster universities..

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Missing Reserved Categories in NEET-2017

JAMMU, FEBRUARY 7: The Board of Professional Entrance Examinations (BOPEE) today said the issue of missing column in respect of some of the reserved categories of Jammu and Kashmir in the online application form for NEET-2017 would be addressed at the time of drawing of the State Merit List. "After issuance of notification by CBSE for submission of online applications forms for NEET-2017 (undergraduate MBBS/BDS courses), several queries have been received by BOPEE from the aspiring candidates regarding missing column in respect of some of the reserved categories of the State," the BOPEE said in a statement.

It said the matter was examined and it has been found that such a problem was noticed also at the time of filling up of the online NEET form for MD/MS/PG Diploma/MDS. "This problem cannot be resolved as of now. However, in case the application of the candidates is not accepted, online, without clicking any category, and if the category is mandatory then in absence of any relevant column available, candidates can click Open Merit category," it said adding that however, at the time of drawing of the State Merit List, this issue can be addressed by the BOPEE. "The matter has also been flagged by BOPEE with CBSE-NEET," it said.

36th Meeting of Academic Council of SKUAST-K held

SRINAGAR, FEBRUARY 7: The 36th meeting of Academic Council of SKUAST-Kashmir was held under the Chairmanship of Vice-Chancellor Prof Nazeer Ahmed. All the Statutory members, Directors, Deans, Heads of Divisions and nominees from other Universities attended the meeting. During the meeting, various academic matters were deliberated upon and intake capacity for admission to various undergraduate and postgraduate degree programmes for the academic session 2017 was approved. Among other major academic matters, 5th Deans Committee Recommendations, API Score Card for selection

to various faculty positions under direct recruitment, Accreditation of SKUAST-K by ICAR, Implementation of UGC Regulations-2016 and rationalization of teaching staff were discussed and adopted.

Syllabi for newly instituted Masters/Ph.D Degree programmes were also approved. Various matters that had been discussed and referred by statutory bodies of Subject Matter Faculties also came up for discussions. Practical manual of Principles of Genetics and theoretical manual of Principles of Plant Breeding published by Division of Genetics and Plant Breeding were also released on the occasion.

RET TEACHERS PROTEST AGAINST GOVT

Srinagar, Feb 08: Demanding immediate release of their salaries, the Rehber-e-Taleem (ReT) teachers of north Kashmir's Bandipora district on Wednesday carried out a protest march against the government for failing to release their monthly salaries.

Amid anti-government sloganeering, the protesters who were holding banners assembled

»» Cont. ReT Teachers..

on P#15

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INTEGERS | Part: 2nd

An integer is a number that has no fractional part and no digits after the decimal point. An integer can be positive, negative or zero. Example: 12, 34, -4, 0.

SUBTRACTION OF INTEGERS:

Subtraction is the inverse operation of addition. So, to subtract an integer b from another integer a , add the additive inverse of b to a , i.e.,

$$a - (b) = a + (-b) \text{ and } a - (-b) = a + (+b)$$

Example: Subtract the following integers.

7 from 3

Solution: $3 - 7 = 3 + (\text{additive inverse of } 7) = 3 + (-7) = -4$.

-46 from -14

Solution: $-14 - (-46) = -14 + (\text{additive inverse of } -46) = -14 + (+46) = +32$.

-5 from 2

Solution: $2 - (-5) = 2 + (\text{additive inverse of } -5) = 2 + (5) = 7$.

18 from -49

Solution: $-49 - 18 = -49 + (\text{additive inverse of } 18) = -49 + (-18) = -67$.

Properties of subtraction of integers:

Closure property of subtraction: The difference of two integers is always an integer, i.e., integers are closed under subtraction. If a and b are any two integers, then

$a - b$ is always an integer

Example: $3 - 8 = 3 + (-8) = -5$ is an integer.

Commutative property: Subtraction is not commutative for integers. If a and b are any two integers, then

$$a - b \neq b - a$$

Example: $4 - 9 = 4 + (-9) = -5$,

And $9 - 4 = 9 + (-4) = 5$

Therefore, $4 - 9 \neq 9 - 4$

Associative property: Subtraction is not associative for integers. If a , b and c are any three integers, then

$$(a - b) - c \neq a - (b - c)$$

Example: $[3 - (-4)] - (-5) = [3 + (4)] + (5) = 7 + 5 = 12$

And $3 - [(-4) - (-5)] = 3 - [(-4) + 5] = 3 - 1 = 2$

Therefore, $[3 - (-4)] - (-5) \neq 3 - [(-4) - (-5)]$

Subtraction property of zero: The result of subtracting zero from an integer is the integer itself. If a is an integer, then

$$a - 0 = a$$

If a , b , c are integers and $a > b$, then

$$a - c > b - c$$

MULTIPLICATION OF INTEGERS:

When the given two integers are of like signs: To find the product of two integers of like signs, find the product of their numerical values (absolute values) and assign a positive sign to the product.

Example: Find the following products:

$$16 \times 20$$

Solution: $16 \times 20 = 320$

$$(-12) \times (-16)$$

Solution: $(-12) \times (-16) = 192$

When the given two integers are of unlike signs:

To find the product of two integers of unlike signs, find the product of their numerical values (absolute values) and assign a minus sign to the product.

Example: Find the following products:

$$8 \times (-7)$$

Solution: $8 \times (-7) = -56$

$$(-53) \times 20$$

Solution: $(-53) \times 20 = -1060$

Properties of multiplication of integers:

Closure property: The product of two integers is always an integer, i.e., integers are closed under multiplication. If a and b are any two integers, then

$a \times b$ is always an integer

Example: $-7 \times 5 = -35$ is an integer

Commutative property: Two integers can be multiplied in any order, i.e., multiplication is commutative for integers. If a and b are any two integers, then

$$a \times b = b \times a$$

Example: $7 \times (-8) = -56$

And $(-8) \times 7 = -56$

Therefore, $7 \times (-8) = (-8) \times 7$

Associative property: Three or more integers can be grouped in any order to find their product, i.e., multiplication is associative for integers.

If a , b and c are any three integers, then

$$(a \times b) \times c = a \times (b \times c)$$

Example: $[4 \times (-6)] \times (-9) = (-24) \times (-9) = 216$

And $4 \times [9 - 60 \times (-9)] = 4 \times (54) = 216$

Therefore, $[4 \times (-6)] \times (-9) = 4 \times [(-6) \times (-9)]$

Distributive property of multiplication of integers over addition: The multiplication of integers is distributive over addition. If a , b and c are any three integers, then

$a \times (b + c) = (a \times b) + (a \times c)$

Example: $5 \times [(-6) + (-7)] = 5 \times (-13) = -65$

And $[5 \times (-6)] + [5 \times (-7)] = (-30) + (-35) = -65$

Therefore, $5 \times [(-6) + (-7)] = [5 \times (-6)] + [5 \times (-7)]$

Existence of multiplicative identity: The product of any integer and 1 is the integer itself. In other words, 1 is the multiplicative identity for integers. If a is any integer, then

$$(a \times 1) = (1 \times a) = a$$

Existence of multiplicative inverse: The product of any non-zero integer and its reciprocal is 1. If a is a non-zero integer, then

$$a \times \frac{1}{a} = \frac{1}{a} \times a = 1$$

Thus, non-zero integer a and its reciprocal $\frac{1}{a}$ are called the multiplicative inverse of each other.

Example: Multiplicative inverse of 5 is $\frac{1}{5}$.

Property of zero: The product of any integer and zero is 0. If a is any integer, then

$$a \times 0 = 0 \times a = 0$$

Example: $9 \times 0 = 0 \times 9 = 0$.

Multiplication of an integer by -1: The product of any integer other than zero and -1 is the additive inverse of that integer.

If a is any non-zero integer, then

$$a \times (-1) = (-1) \times a = -a \text{ (additive inverse of } a)$$

ACTIVITY TIME:

1. Fill in the blanks to make the following statements true.

a. $(-3) + (-7) = (-7) + (\underline{\hspace{2cm}})$

b. $-69 + \underline{\hspace{2cm}} = -69$

c. $19 + \underline{\hspace{2cm}} = 0$

d. $[27 + (-18)] + (\underline{\hspace{2cm}}) = 27$

+ $[(-18) + (-8)]$

2. Select the correct answer:

a. $|-187| - |-186|$ is equal to

i. 0

ii. 1

iii. -1

iv. 373

b. -3 exceeds -6 by

i. -3

ii. 9

iii. 3

iv. -9

c. What must be subtracted from -2

to get -7?

i. 5

ii. -5

iii. 9

iv. -9

d. The sum of two integers is -5. If one of them is 6, then the other one is

i. 11

ii. -11

iii. 1

iv. -1

3. Subtract:

a. 32 from -80

b. -36 from 42

c. -2012 from 6250

d. -2768 from -287

4. Find the product of each of the following:

a. 14×9

b. $15 \times (-16)$

c. $(-25) \times 9$

d. $(-32) \times (-21)$

INDIAN HISTORY

Origin

India is home to one of the richest and the most ancient civilizations in the world, which existed over 5,000 years ago. This civilization originated in the Indus River Valley, hence the name given to it was Indus Valley civilization. It is the origin of many of the ideas, philosophies and movements which have shaped the destiny of mankind. The civilization with its main cities Mohenjodaro and Harappa flourished for over eight centuries. Its people thought to be Dravidians, whose descendants still inhabit the far south of India.

Aryan and Greek Invasions

The country was influenced by many invasions, the Arya or Aryans (1500BC) as they are known today, are the first invaders. Aryans were a group of nomadic tribes who had originally inhabited the steppes of Central Asia, in particular the region between the Caspian Sea and the Black Sea. Tall, fair haired, with clear cut features, they spoke a group of languages which have become known as Indo-European. They settled in the region to the north west of India, known as the Punjab. They brought with them new ideas, new technology and new gods, this is one of the most important epochs in Indian history. With time, the Aryans were engaged in struggle with the dark skinned people or Dasyus. The Dasyus were the Dravidians. The superiority of the Aryans resulted in the Dravidian submission.

The second great invasion into India occurred around 500 BC, when the Persian kings Cyrus and Darius, pushing their empire eastward, conquered the prized Indus Valley. After centuries of obscurity, doubt and conjecture, India came into the full light of recorded history with the invasion of Alexander the Great of Macedonia in 327 BC. Although Alexander crossed the Indus and defeated an Indian king, he turned back without extending his power into India.

Maurya and Gupta Periods

The receding tide of Greek power led to a period of confusion and uncertainty in northern India as various rulers tried to make capital of the vacuum that Alexander had left behind. These circumstances saw the rise of Mauryas, India's first imperial dynasty, founded by Chandragupta Maurya. Maurya dynasty reached its peak around 260 BC under the Emperor Ashoka, the most famous figures in Indian History. He left a series of inscriptions on pillars and rocks across the sub-continent. But after

his death, the Mauryan empire gradually fell apart because his descendants were not as strong rulers as he was.

At the beginning of the fourth century AD, India was fragmented into a lot of small kingdoms. They were often invaded by stronger neighbors like Greeks. They conquered Indus Valley again but they didn't stay for long. Out of this seeming Chaos, King Chandragupta II united all of northern India into a great empire again.

The Gupta period has been described as the golden age of Indian history and under their rule of northern India, arts, including poetry and literature, flourished. The exquisite Ajanta and Ellora caves were excavated in this period. Gupta period extended from 320AD to 480AD. But in 455 AD the Huns invaded India from the north and destroyed the Guptan Empire. Again India was split into small kingdoms until the Muslim invasions around 1000 AD.

In South India, great empires rose, entirely independently from those of the north. These included the Kalachuris, Chalukyas, Rashtrakutas, Yadavas, Hoysalas, Pallavas, Cholas, Pandyas, Cheras and the Vijayanagar kingdom.

Muslim Invasions

The Medieval Period in Indian history began with the Muslim Invasions. While the Hindu kingdoms ruled in the south and Buddhism was fading in the north, Muslim invasions from the Middle East began, towards the end of the 12th century. The Muslim period in India began with the Turkish conquests under Mahmud of Ghazni and Muhammad Ghor. Many famous dynasties such as the Slave Dynasty, Khilji Dynasty, Tughlaq Dynasty, Saiyyid and Lodhi, Bahmani Dynasty, and Others followed. In the 16th century, Babur from Fergana (Uzbekistan), a descendant of Genghis Khan swept across the Khyber Pass, defeated Ibrahim Lodi the last ruler of the Delhi Sultanate at the battle of Panipat and established the Great Mughal Dynasty which lasted for 200 years.

The Mughal (Mogul) period saw a remarkable blend of Indian, Persian and Central Asian influences manifested in an impressive legacy of magnificent palaces, forts, tombs and landscaped gardens-including India's magnificent edifice, the Taj Mahal. The golden era of the Mughal period was under the rule of Akbar the great.

Leaders of Free India

India is a land of great political leaders who ruled the country effectively and also by protecting its national interest. It was not an easy task to accomplish, keeping in view the changes taking place in the world political scenario. Leaders like Pandit Jawaharlal Nehru, Lal Bahadur Shastri and Indira Gandhi Bose played an indispensable role in changing the perspective of world towards India. The manner, in which issues like border disputes, Kashmir and growing shortage of food grains were handled, they really deserve an honor. The far-sightedness and pragmatic characteristics of the leaders can be assumed from the fact that they framed the Constitution of India by inducting the best possible clauses of the world. They led the country from the front, without being showing any inclination to either of the power blocs. To know more about the political leaders of India, read the brief biography of the Indian political leaders.

Bal Gangadhar Tilak

Bal Gangadhar Tilak was a social reformer and freedom fighter. He was one of the prime architects of modern India and strongest advocates of Swaraj (Self Rule). He was universally recognized as the "Father of Indian Movement".

Bhagat Singh

Bhagat Singh was among the prominent revolutionaries who shaped the base of a grand national movement. Following his execution, on March 23, 1931, the supporters and followers of Bhagat Singh regarded him as a "Shaheed", "martyr".

Chandrasekhar Azad

A contemporary of Bhagat Singh, Chandrasekhar Azad was a born firebrand revolutionary. He engaged in a heroic battle against the British. His role was crucial in inspiring the others of his generation to participate in the national movement for freedom.

Gopal Krishna Gokhale

Gopal Krishna Gokhale was one of the pioneers of the Indian Independence Movement. Gokhale was a senior leader of the Indian National Congress. He was one of the most learned men in the country, a leader of social and political reformists and one of the earliest and founding leaders of the Indian Independence Movement.

Indira Gandhi

Indira Gandhi was, undoubtedly, one of the greatest political leaders of India. She was the first and only woman to be elected as the Prime Minister. She is also regarded as the most controversial political leader of the country for her unprecedented decision of imposing "a state of emergency".

Jawaharlal Nehru

Jawaharlal Nehru was the first Prime Minister of independent India. He was a member the Congress Party that led the freedom movement against British Empire. Nehru was one of the architects who had the opportunity to steer the newly freed-nation. He was also the chief framer of domestic and international policies between 1947 and 1964.

Lala Lajpat Rai

Lala Lajpat Rai immensely contributed in attaining independence the nation. He helped in establishing few schools in the country. He also initiated the foundation of Punjab National Bank. In 1897, he founded the Hindu Orphan Relief Movement to keep the Christian missions from securing custody of these children.

Lal Bahadur Shastri

He devoted his life for the pride and honor of the country. Shastri was regarded as man of principles. Lal Bahadur Shastri offered his resignation as Union Railway Minister; hours after he was made aware of a train accident that killed around 150 people.

Maulana Abul Kalam Azad

Indira Gandhi Maulana Abul Kalam Azad was a renowned journalist of his time. Disturbed by his provocative articles, the British Government decided to deport him off Calcutta. Despite of his house-arrest and imprisonment, Maulana Abul Kalam Azad continued to write against the anti-people policies of the British Government.

Netaji Subhash Chandra Bose

Netaji Subhash Chandra Bose was a freedom fighter of India. He was the founder of the Indian National Army. During pre-independence period Netaji had visited London to discuss the future of India, with the members of the Labor party.

Dr. Rajendra Prasad

Rajendra Prasad was a great leader of the Indian Nationalist Movement and also one of the architects of the Indian Constitution. He was elected as the first President of Republic of India. Rajendra Prasad was a crucial leader of the Indian Independence Movement, who left his lucrative profession to participate in the nationalist movement of India.

Rajiv Gandhi

Rajiv Gandhi was one of the popular Prime Ministers of India. The developmental projects launched by him include the national education policy and expansion of telecom sector. Besides his achievement and subsequent popularity, Rajiv Gandhi also emerged as one of India's controversial Prime Ministers.

Sardar Vallabhbhai Patel

Vallabhbhai Patel was one of the great social leaders of India. He played a crucial role during the freedom struggle of India and was instrumental in the integration of over 500 princely states into the Indian Union. Despite the choice of the people, on the request of Mahatma Gandhi, Sardar Patel stepped down from the candidacy of Congress president.

Sarojini Naidu

Sarojini Naidu was truly one of the gems of the 20th century India. She was known by the sobriquet "The Nightingale of India". Her contribution was not confined to the fields of politics only but she was also a renowned poet. The play "Maher Muneer", written by Naidu at an early age, fetched a scholarship to study abroad.

ENERGY FROM THE SEA

The energy from the sea can be obtained mainly in three forms:

- 1) **Tidal energy**
- 2) **Wave energy**
- 3) **ocean thermal energy**

We will now describe these three means of obtaining energy from the sea in somewhat detail

Tidal Energy

The raise of sea water due to gravitational pull of the moon is called "high tide" whereas the fall of sea water is called "low tide". The tidal waves in the sea build up and recede (rise and fall) twice a day. The enormous movement of water between the high tides and low tides provides a very large source of energy in the coastal areas of the world. The tidal energy can be harnessed by constructing a tidal barrage or tidal dam across a narrow opening to the sea.

During high tide when the level of water in the sea is high, sea water flows into the reservoir of the barrage and turns the turbines. The turbines then turn the generators to produce electricity. And during the low tide, when the level of sea-water is low, the sea water stored in the barrage reservoir is allowed to flow out into the sea. This flowing water also turns the turbines and generates electricity. Thus as sea-water flows in and out of the tidal barrage during high and low tides, it turns the turbines to generate electricity. The tidal energy is not likely to be a potential source of energy in future because of the following reasons:

- 1) There are very few sites around the world which are suitable for building tidal barrages (or tidal dams).
2. The rise and fall of sea-water during high and low tides is not enough to generate electricity on a large scale.

Wave Energy

Wave energy here means 'sea waves energy'. Energy from the sea is also available in the form of sea waves. Due to the blowing of wind on the surface of sea, very fast sea-waves (or water waves) move on its surface. Due to their high speed, sea-waves have a lot of kinetic energy in them. The energy of moving sea-waves can be used to generate electricity. A wide variety of devices have been developed to trap sea-wave energy to turn turbines and drive generators for the production of electricity. 1) one idea is to set-up floating generators in the sea. These would move up and down with the sea-waves. This movement would drive the generators to

produce electricity.

2) Another idea is to let the sea-waves move up and down inside large tubes. As the waves move up, the air in the tubes is compressed. This compressed air can then be used to turn a turbine of a generator to produce electricity. These ideas are only experimental in nature. Models have been made based on these ideas but it will be many years before full-size wave-energy generators can be built to harness the sea-waves energy on a large scale. The harnessing of sea-waves energy would be a viable proposition only at those places where sea-waves are very strong.

Ocean Thermal Energy

A very large area of sea is called an ocean. The water at the surface of an ocean gets heated by the heat of the sun and attains a higher temperature than the colder water at deeper levels in the ocean. So, there is always a temperature difference between the water "at the surface of ocean" and "at deeper levels." The energy available due to the difference in the temperature of water at the surface of the ocean and at deeper levels is called ocean thermal energy (OTE). The Ocean thermal energy can be converted into a "usable form" of energy like electricity. This can be done as follows:

The device used to harness ocean thermal energy are called Ocean Thermal Energy Conversion power plants (or OTEC power plant). A temperature difference of 20 degree Celsius (or more) between the surface water of ocean and deeper water is needed for operating OTEC power plants. In one type of OTEC power plant, the warm surface water of ocean is used to boil a liquid like ammonia or a Chlorofluorocarbons (CFC). The high pressure vapours of the liquid (formed by boiling) are then used to turn the turbine of a generator and produce electricity. The colder water from the deeper ocean is pumped up to cool the used up vapours and convert them again into a liquid. This process is repeated again and again.

A great advantage of the ocean thermal energy is that it can be used continuously 24 hours a day throughout the year. Another advantage is that ocean thermal energy is a renewable source of energy and its use does not cause any

pollution.

Please note that wave energy and ocean thermal energy are the two forms in which solar energy manifests itself in ocean. Another point to be noted is that though the energy potential from the sea (tidal energy, wave energy, and ocean thermal energy) is very large but its large scale exploitation is difficult at the moment.

Facts

Energy from the Sea (Oceans)

About 71% of the earth's surface is covered by oceans. Energy can be harnessed from

Tides

Sea-waves

Temperature differences in the water

We shall discuss each energy form in detail

Tidal Energy

Tides are caused due to the gravitational pull of the moon on the water in oceans and seas. The enormous movement of water between the high tides and low tides provides a very large source of energy in the coastal areas of the world. This tidal energy can be harnessed by constructing a dam or a barrage as shown in the figure given above. The energy conversion involved in the process is given below:

Electricity from tidal energy

Working

During high tide, when the level of water in the sea is high, sea-water flows into the reservoir of the barrage and turns the turbines. The turbines then turn the generator shaft to produce electricity.

At high tide water flows from sea into reservoir and turns the turbine

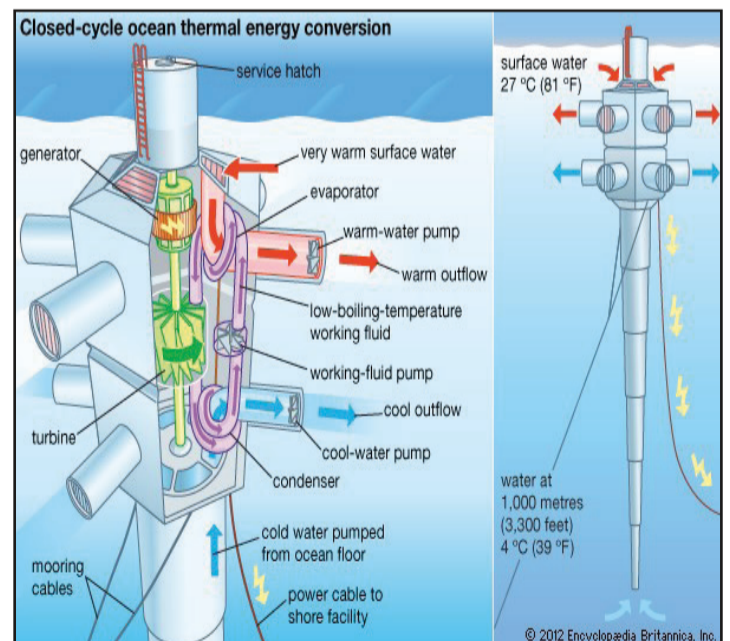
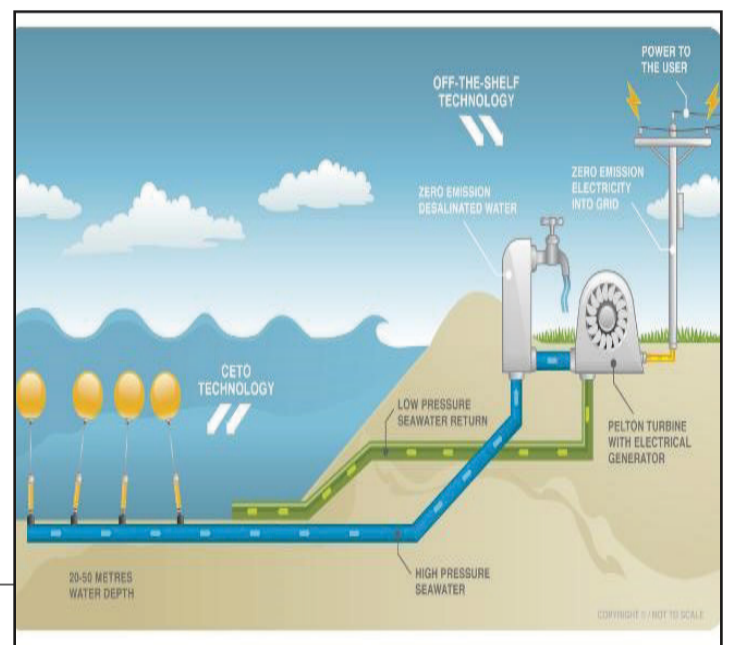
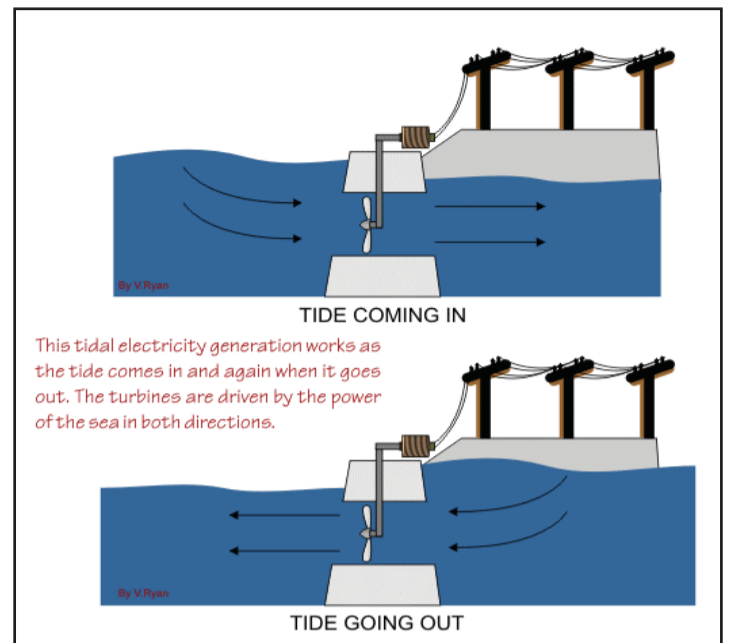
During low tide, the sea-water stored in the barrage reservoir is allowed to flow out into the sea. This flowing water also turns the turbines and generates electricity. Thus, as the sea-water flows in and out of the tidal barrage during high and low tides, the turbines rotate continuously to generate electricity.

at low tide stored water flows out from reservoir into sea and turns the turbine

Limitations

The tides do not possess enough energy to generate electricity on a large scale

Only few sites are suitable for building such barrages (or tidal dams)



Activity Time

Answer the Questions:

1. Name any three forms of energy which could be harnessed from the sea
2. Write two forms in which solar energy manifests itself in sea?
3. Explain how tidal energy can be used to generate electricity?
4. Why is tidal energy not likely to be a potential source of energy?
5. State two ways in which the energy of sea waves can be harnessed?
6. Write the full form of OTEC?
7. What is meant by ocean thermal energy?

VERB | Part – 3rd



A verb is a word used to tell or assert something about some person or thing; e.g., (i) Shreen weeps. (ii) Zargar is scolded. (iii) The dog is dead.

TYPES OF VERB:

Modal verbs: Modals (also called modal verbs, modal auxiliary verbs, modal auxiliaries) are special verbs which behave irregularly in English. They are different from normal verbs like "work, play, visit..." They give additional information about the function of the main verb that follows it. They have a great variety of communicative functions.

Here are some characteristics of modal verbs:

- They never change their form. You can't add "s", "ed", "ing"...
- They are always followed by an infinitive without "to" (i.e. the bare infinitive.)

Examples:

- You must stop when the traffic lights turn red.
 - You should see to the doctor.
 - There are a lot of tomatoes in the fridge. You need not buy any.
 - They are used to indicate modality allow speakers to express certainty, possibility, willingness, obligation, necessity, ability
- List of modal verbs:
Here is a list of modal verbs: can, could, may, might, will, would, shall, should, must

The verbs or expressions dare, ought to, had better, and need not behave like modal auxiliaries to a large extent and may be added to the above list.

Use of modal verbs:

Modal verbs are used to express functions such as:

1. Permission
2. Ability
3. Obligation
4. Prohibition
5. Lack of necessity
6. Advice
7. possibility
8. probability

Examples of modal verbs

See list for modals with examples

Phrasal Verbs: A phrasal verb is a verb followed by a preposition or an adverb; the combination creates a meaning different from the original verb alone.

Example:

- To get = to obtain
I need to get a new battery for my camera.
 - To get together = to meet
Why don't we all get together for lunch one day?
- Phrasal verbs are part of a large group of verbs called "multi-part" or "multi-word" verbs.

The preposition or adverb that follows the verb is sometimes called a particle. Phrasal verbs and other multi-word verbs are an important part of the English language.

However, they are mainly

used in spoken English and informal texts. They should be avoided in academic writing where it is preferable to use a formal verb such as "to postpone" rather than "to put off".

Transitive and intransitive phrasal verbs:

- Some phrasal verbs are transitive. (A transitive verb always has an object.)
Example: I made up an excuse. ('Excuse' is the object of the verb.)
- Some phrasal verbs are intransitive. (An intransitive verb does not have an object.)

Example: My car broke down.

Separable or inseparable phrasal verbs:

- Some transitive phrasal verbs are separable. (The object is between the verb and the preposition.)

Example: I looked the word up in the dictionary.

- Some transitive phrasal verbs are inseparable. (The object is placed after the preposition.)
Example: I will look into the matter as soon as possible.
Some transitive phrasal verbs can take an object in both places.
Example: I picked up the book.

I picked the book up. However, if the object is a pronoun, it must be placed between the verb and the preposition.

Example: I picked it up.

Modal Verb	Expressing	Example
must	Strong obligation	You must stop when the traffic lights turn red.
	logical conclusion / Certainty	He must be very tired. He's been working all day long.
must not	prohibition	You must not smoke in the hospital.
can	ability	I can swim.
	permission	Can I use your phone please?
could	possibility	Smoking can cause cancer.
	ability in the past	When I was younger I could run fast.
	polite permission	Excuse me, could I just say something?
	possibility	It could rain tomorrow!
may	permission	May I use your phone please?
	possibility, probability	It may rain tomorrow!
might	polite permission	Might I suggest an idea?
	possibility, probability	I might go on holiday to Australia next year.
need not	lack of necessity/absence of obligation	I need not buy tomatoes. There are plenty of tomatoes in the fridge.
should/ought to	50 % obligation	I should / ought to see a doctor. I have a terrible headache.
	advice	You should / ought to revise your lessons
	logical conclusion	He should / ought to be very tired. He's been working all day long.
had better	advice	You 'd better revise your lessons

ACTIVITY TIME:

1. Fill in the correct form of can, could or be able as in the example given below:

Can I call you later tonight?

- _____ You teach me how to fix my computer? You're so good at it.
- The students' _____ to buy their textbooks today. The bookstore is all out of them.
- _____ Rafiq run long distances when he was a boy?

2. Choose the correct phrasal verb from the parenthesis at the end of the sentence.

- His father always taught him not to _____ those people with less. (look up to / look down on)
- Stop complaining and _____ your work! (get on with/ get over)
- The boss wants you to _____ your figures for this month to him. (hand out/ hand in)
- The police would not _____ to the kidnapper's demands. (give up/ give in)

3. Fill in the blanks with one of the modals given in the brackets. There may be more than one correct answer.

- Taniya _____ register for her classes on Monday, otherwise she won't get a place in them. (doesn't, have to, mustn't, has to)
- You _____ send that fax. I've already sent it. (must, will have to, don't have to)
- A dog _____ get special training in order to be a guide dog. (must, need to, don't have to)
- Junaid _____ get up early tomorrow. His class was cancelled. (mustn't, doesn't have to, don't need to)

SIX SIGMA



Six Sigma is a quality-control program. It was introduced by engineer Bill Smith while working at Motorola in 1986. Jack Welch made it central to his business strategy at General Electric in 1995. Six Sigma has evolved into a more general business-management philosophy focused on meeting customer requirements, improving customer retention, and improving and sustaining business products and services.

It seeks to improve the quality of the output of a process by identifying and removing the causes of defects and minimizing variability in

manufacturing and business processes. It uses a set of quality management methods, mainly empirical, statistical methods, and creates a special infrastructure of people within the organization who are experts in these methods. Each Six Sigma project carried out within an organization follows a defined sequence of steps and has specific value targets, for example: reduce process cycle time, reduce pollution, reduce costs, increase customer satisfaction, and increase profits.

Six Sigma doctrines assert:

- Continuous efforts to achieve stable and predictable process

results (e.g. by reducing process variation) are of vital importance to business success.

- Manufacturing and business processes have characteristics that can be defined, measured, analyzed, improved, and controlled.

- Achieving sustained quality improvement requires commitment from the entire organization, particularly from top-level management.

Features that set Six Sigma apart from previous quality-improvement initiatives include:

- A clear focus on achieving measurable and quantifiable financial returns from any Six Sigma project.

- An increased emphasis on strong and passionate management leadership and support.

- A clear commitment to making decisions on the basis of verifiable data and statistical methods, rather than assumptions and guesswork.

The fundamental objective of the Six Sigma methodology

is the implementation of a measurement-based strategy that focuses on process improvement and variation reduction through the application of Six Sigma improvement projects. This is accomplished through the use of two Six Sigma sub-methodologies: DMAIC and DMADV. The Six Sigma DMAIC process (define, measure, analyze, improve, control) is an improvement system for existing processes falling below specification and looking for incremental improvement. The Six Sigma DMADV process (define, measure, analyze, design, verify) is an improvement system used to develop new processes or products at Six Sigma quality levels. It can also be employed if a current process requires more than just incremental improvement. Both Six Sigma processes are executed by Six Sigma Green Belts and Six Sigma Black Belts, and are overseen by Six Sigma Master Black Belts.

According to the Six Sigma Academy, Black Belts save companies approximately \$230,000 per project and can complete four to six projects per year. (Given that the average Black Belt salary is \$80,000 in the United States that is a fantastic return on investment.) General Electric, one of the most successful companies implementing Six Sigma, has estimated benefits on the order of \$10 billion during the first five years of implementation. GE first began Six Sigma in 1995 after Motorola and Allied Signal blazed the Six Sigma trail. Since then, thousands of companies around the world have discovered the far reaching benefits of Six Sigma. Many frameworks exist for implementing the Six Sigma methodology. Six Sigma Consultants all over the world have developed proprietary methodologies for implementing Six Sigma quality, based on the similar change management philosophies and applications of tools.

Educational psychology

Educational Psychology is the branch of psychology concerned with the scientific study of human learning. The study of learning processes, from both cognitive and behavioral perspectives, allows researchers to understand individual differences in intelligence, cognitive development, affect, motivation, self-regulation, and self-concept, as well as their role in learning. The field of educational psychology relies heavily on quantitative methods, including testing and measurement, to enhance educational activities related to instructional design, classroom management, and assessment, which serve to facilitate learning processes in various educational settings across the lifespan.

Educational psychology can in part be understood through its relationship with other disciplines. It is informed primarily by psychology,

bearing a relationship to that discipline analogous to the relationship between medicine and biology. It is also informed by neuroscience. Educational psychology in turn informs a wide range of specialities within educational studies, including instructional design, educational technology, curriculum development, organizational learning, special education and classroom management. Educational psychology both draws from and contributes to cognitive science and the learning sciences. In universities, departments of educational psychology are usually housed within faculties of education, possibly accounting for the lack of representation of educational psychology content in introductory psychology textbooks.

The field of educational psychology involves the study of memory, conceptual processes, and individual differences

(via cognitive psychology) in conceptualizing new strategies for learning processes in humans. Educational psychology has been built upon theories of operant conditioning, functionalism, structuralism, constructivism, humanistic psychology, Gestalt psychology, and information processing.

Educational psychology has seen rapid growth and development as a profession in the last twenty years. School psychology began with the concept of intelligence testing leading to provisions for special education students, who could not follow the regular classroom curriculum in the early part of the 20th century. However, "school psychology" itself has built a fairly new profession based upon the practices and theories of several psychologists among many different fields. Educational psychologists are working side by side with psychiatrists, social workers,

teachers, speech and language therapists, and counselors in attempt to understand the questions being raised when combining behavioral, cognitive, and social psychology in the classroom setting.

Educational psychology is a fairly new and growing field of study. Though it can date back as early as the days of Plato and Aristotle, it was not identified as a specific practice. It was unknown that everyday teaching and learning in which individuals had to think about individual differences, assessment, development, the nature of a subject being taught, problem solving, and transfer of learning was the beginning to the field of educational psychology. These topics are important to education and as a result it is important to understanding human cognition, learning, and social perception.

Plato and Aristotle

Educational psychology dates back to the time of Aristotle and Plato. Plato and Aristotle researched individual differences in the field of education, training of the body and the cultivation of psychomotor skills, the formation of good character, the possibilities and limits of moral education. Some other educational topics they spoke about were the effects of music, poetry, and the other arts on the development of individual, role of teacher, and the relations between teacher and student. Plato saw knowledge as an innate ability, which evolves through experience and understanding of the world. Such a statement has evolved into a continuing argument of nature vs. nurture in understanding conditioning and learning today. Aristotle observed the phenomenon of "association." His four laws of association included succession, contiguity, similarity, and contrast. His studies examined recall and facilitated learning



NATIONAL INSTITUTE OF FASHION TECHNOLOGY

National Institute of Fashion Technology, a leader in fashion education with the ability to integrate knowledge, academic freedom, critical independence and creative thinking has a history of being in existence for 28 years stands as a testimony to its fundamentals where academic excellence lies at the core. The institute has stood as a beacon of serious critical engagement, a key enabler in developing competent professionals.

HISTORY:

National Institute of Fashion Technology was set-up in 1986 at New Delhi by the Ministry of Textiles, Government of India as a registered society under the Societies Registration Act, 1860. Today across the globe, NIFT is acknowledged as a premier institute for imparting education in various areas of fashion including design, management and technology.

Kashmir is pristine in every sense. It is home to myriad arts and crafts that have been nurtured over centuries. So much so, the crafted beauties are today sought after around the globe. Kashmir claims ownership to such fine traditional crafts as woolen textiles, Pashmina shawls, embroidered suits, Kashmir silk saris, paper machie, wood carving, hand knotted carpets and many more.

NIFT Srinagar was established in the state to meet the security needs of the artisans. The institute also addresses the gap in demand and supply of quality professionals in this area.



FACILITIES:

The Campus possesses a three storied concrete building fully equipped with hot & cold AC's, Wi-Fi facility, library and all other facilities. The hostel is just half a kilometer away from the airport and 4kms from campus. The hostel rooms are very spacious and fully furnished with attached bathroom. Hostel campus has lawn and a spacious dining area as well.

COURSES OFFERED:

NIFT, Srinagar offers two undergraduate four year courses from its campus at Rangreth, Srinagar:

- Bachelor of Fashion Design: The course aims to bring about a paradigm shift in design perception in India. The four year programme has been designed in such a way that it works closely with fashion professionals so as to evolve a distinctive and exceptional fashion identity. The course enables the students to experience all the crafts of the valley very closely and implement these techniques in their designs.
- Bachelor of Fashion Communication: Fashion Communication (FC) is a four year specialized course that enables students to acquire communication skills pertinent to the fashion and lifestyle industry. FC encompasses integrated course study relating to areas such as; Graphic Design, Fashion Journalism, Visual Merchandising, Photography, Advertising, Public Relations, Styling, Writing Skills, Exhibition Design, Publication Design, Multimedia, Consumer Behavior in Fashion, Communication Concepts & processes, Craft Cluster & Documentation and Space Design.

Sh. Sudhir Tripathi	Director General
Syed Azher Qayoom	Assistant Professor
Nousheen Qazi	Fashion Consultant
Arif Hussian Bhat	Accounts assistant
Owais Latif Waidah	Junior Assistant



NUTRITION

Food is an organic substance. The simplest food is glucose. It is also called simple sugar. A more complex food is starch. Starch is made from glucose. The general name of substances like glucose (Sugar) and starch is 'carbohydrates'. Carbohydrates are the most common foods for getting energy. Fats and proteins are also foods. (A wider definition of food, however also include mineral salts, vitamins and water which are essential for the normal growth and development of an organism). The process of taking in food (consuming food) and utilizing it is called nutrition. It is a process in which food is obtained in order to utilize it to provide energy for performing various metabolic activities of the organism. Actually, the term 'nutrition' comes from the word 'nutrient'. A nutrient is an organic or inorganic substance required for the maintenance of life and survival of a living organism. In most simple terms, a nutrient can be said to be a particular type of food. A nutrient can be defined as a substance which an organism obtains from its surroundings and uses it as a source of energy or the biosynthesis of its body constituents (like tissues and organs). For example carbohydrates and fats are the nutrients which are used by an organism mainly as a source of energy whereas protein and mineral salts are nutrients used by an organism for the biosynthesis of its body constituents like skin, blood etc. The food taken in by an organism contains a large number of nutrients like carbohydrates, fats, proteins, minerals, vitamins and water etc. we can now say that: Nutrition is a process of intake of nutrients (like carbohydrates, fats, proteins, minerals, vitamins and water) by an organism as well as the utilization of these nutrients by the organism).

Modes of Nutrition

Modes of nutrition means methods of procuring food or obtaining food by an organism. All the organisms do not obtain their food in the same way. Different organisms have different methods of procuring food or obtaining food. In other words, organisms differ in their modes of nutrition. Depending on the mode (or method) of obtaining food, all the organisms can be classified into two groups: autotrophic

and heterotrophic. Thus

There are mainly two modes of nutrition:

1. Autotrophic

2. Heterotrophic

a. Autotrophic Mode of Nutrition

The word 'auto' means 'self' and 'trophe' means 'nutrition'. Thus Autotrophic means 'self nutrition'. In Autotrophic nutrition the organism makes (or synthesizes) its own food from the inorganic raw materials like carbon dioxide and water present in the surroundings by using the sunlight energy. We can now say that: Autotrophic nutrition is that mode of nutrition in which an organism makes (or synthesis) its own food from the simple inorganic materials like carbon dioxide and water present in the surrounding (with the help of sunlight energy). Please note that food is an organic material (food) is made (or synthesized) from inorganic materials like carbon dioxide and water by utilizing the sunlight energy. The green plants have an Autotrophic mode of nutrition. The Autotrophic bacteria also obtain their food by the Autotrophic mode of nutrition. The Autotrophic bacteria also obtain their food by the Autotrophic mode of nutrition (though most bacteria are not Autotrophic). The organisms having Autotrophic mode of nutrition are called Autotrophic organisms or just autotrophs.

Those organisms which can make their own food from carbon dioxide and water are called autotrophs. Carbon dioxide and water are inorganic substances. So, we can also say that: Those organisms which can make their own food from the inorganic substances present in the environment are called autotrophs. All the green plants are autotrophs (because they can make their own food from inorganic substance like carbon dioxide and water present in the environment). Non-green plants are however not autotrophs. Certain bacteria called 'Autotrophic bacteria' are also autotrophs.

The autotrophic organisms (or autotrophs) contain the green pigment called chlorophyll which is capable of trapping sunlight energy. This trapped sunlight energy is utilized by the autotrophs to make food by combining inorganic materials like carbon dioxide and water present in the environment by

the process of photosynthesis. Thus autotrophs make their own food by photosynthesis. So, autotrophs are the producers of food.

b. Heterotrophic Mode of Nutrition

The word 'hetero' means 'others' and 'trophe' refers to 'nutrition'. Thus Heterotrophic means 'nutrition obtained from others'. In Heterotrophic nutrition the organisms cannot make (or synthesize) its own food from the inorganic raw materials like carbon dioxide and water and uses the food made by autotrophic organisms directly or indirectly. We can now say that Heterotrophic nutrition is that mode of nutrition in which an organism cannot make (or synthesize) its own food from simple inorganic materials like carbon dioxide and water and depends on other organisms for its food. A Heterotrophic organism is a consumer which derives its nutrition from other organisms. That is a Heterotrophic organism has to eat other organisms for its nutrition. All the animals have a heterotrophic mode of nutrition. Most bacteria and fungi also have heterotrophic mode of nutrition. The organisms having heterotrophic mode of nutrition are called heterotrophic organisms or just heterotrophs.

Those organisms which cannot make their own food from inorganic substances like carbon dioxide and water and depends on other organisms for their food are called heterotrophs. All the animals are heterotrophs (because they cannot make food from inorganic substances like carbon dioxide and water and obtain their food from other plants or animals). Thus man, dog, cat, lion, cow etc. are all heterotrophs. The non-green plants (like yeast) are also heterotrophs. Heterotrophs depend on autotrophs and other heterotrophs for their food. In other words, animals are heterotrophs which depend on plants or other animals for their food.

Types of Heterotrophic Nutrition

A heterotrophic organism (or Heterotroph) can obtain its food from other organisms in three ways. So, the heterotrophic mode of nutrition is of three types:

1. Saprotrophic nutrition
2. Parasitic nutrition

3. Holozoic nutrition

1. *Saprotrophic nutrition* is that nutrition in which an organism obtains its food from decaying organic matter of dead plants, dead animals and rotten bread etc. 'Sapro' means rotten, so a Saprotrophic organism draws its food from decaying organic matter of dead plants, dead animals and rotten bread etc. 'Sapro' means rotten, so a Saprotrophic organisms draws its food from rotten leaves, dead animals and household wastes like rotten bread etc. The organisms having Saprotrophic mode of nutrition are called saprophytes. We can now say that: Saprophytes are the organisms which obtain their food from dead plants (like rotten leaves), dead and decaying animal bodies and other decaying organic matter (like rotten bread).

2. Parasitic nutrition

The parasitic nutrition is that nutrition in which an organism derives its food from the body of another living organism (called its host) without killing it. The organism which obtains the food is called a 'parasite' and the organism from whose body food is obtained is called the 'host'. We can now say that: A parasite is an organism (plants or animals) which feeds on another living organism called

its host. A parasite receives its food from the host but gives no benefit to the host in return. A parasite usually harms the host. The host may be a plant or an animal. Most of the diseases which affect mankind, his domestic animals (like dogs and cattle) and his crops are caused by parasites.

3. Holozoic Nutrition

'Holozoic nutrition' means 'feeding on solid food' (which may be a plant product or an animal product). Most of the animals (including human beings) take the solid food into their body by the process of ingestion. The ingested food is then digested (broken down) into simpler substances which are then absorbed into the cells of the body. And the undigested and unabsorbed waste materials are egested (thrown out) of the body. We can now say that: The Holozoic nutrition is that nutrition in which an organism takes the complex organic food materials into its body by the process of ingestion, the ingested food is digested and then absorbed into the body cells of the organism. The undigested and unabsorbed part of the food is thrown out of the body of the organism by the process of egestion. The human beings and most of the animals have a Holozoic mode of nutrition.

	Autotrophic nutrition		Heterotrophic nutrition
(i)	Food is synthesised from simple inorganic raw materials such as CO ₂ and water.	(i)	Food is obtained directly or indirectly from autotrophs. This food is broken down with the help of enzymes.
(ii)	Presence of green pigment (chlorophyll) is necessary.	(ii)	No pigment is required in this type of nutrition.
(iii)	Food is generally prepared during day time.	(iii)	Food can be prepared at all times.
(iv)	All green plants and some bacteria have this type of nutrition.	(iv)	All animals and fungi have this type of nutrition.

ACTIVITY TIME:

Questions:

1. What are autotrophs? Give one example of autotrophs?
2. What are heterotrophs? Give one example of heterotrophs?
3. Which of the following is an autotroph?
Green plant or Man
4. Name two inorganic substances which are used by autotrophs to make food?
5. Define nutrition. What are the different modes of nutrition?
6. Why is nutrition necessary for an organism?
7. What are the various types of Heterotrophic nutrition?
8. Define the following terms:
a) Saprophytes b) Parasite

Difference between Lease Financing Vs. Hire Purchase

Lease finance and hire purchase are the options of financing the assets. These options vary from each other in many aspects viz. ownership of the asset, depreciation, rental payments, duration, tax impact, repairs and maintenance of the asset and the extent of finance.

Starting any business involves a lot of financial planning for acquisition of fixed assets like land, plant and machinery etc. Most entrepreneurs are scared of capital intensive projects due to huge financial commitments. When large capital is involved in the business, an entrepreneur wishes to spread his cost of acquisition of fixed assets over a longer period. A longer period would reduce per year commitment towards the cost of an asset.

The intention is to match the commitment with the revenue generated per year so that the payments are easily manageable without any cash flow mismatch.

Lease and Hire purchase is an exact solution to that kind of financial arrangement where the cash commitment is spread over the life of the asset and on the top, lease financing does not even require any initial capital outflow also. Hence under lease, the entrepreneur can use his capital for other working capital requirements.

Difference between Lease Financing Vs. Hire Purchase LEASE

In simple words, Lease is a financial contract between the business customer (user) and the equipment supplier (normally owner) for using a particular asset/equipment over a period of time against the periodic payments called "Lease rentals".

The lease generally involves two parties i.e. the lessor (owner) and the lessee (user). Under this arrangement, the lessor transfers the right to use to the lessee in return of the lease rentals agreed upon. A lease agreement can be made flexible enough to meet the financial requirements of both the parties.

HIRE PURCHASE

Hire Purchase is a kind of instalment purchase where the businessman (hirer) agrees to pay the cost of the equipment in different instalments over a period of time. This instalment covers the principal amount and the interest cost towards the purchase of an asset for the period the asset is utilized. The hirer gets the possession of the asset as soon as the hire purchase agreement is signed. The hirer becomes the owner of the equipment after the last payment is made. The hirer has the right to terminate the agreement anytime before taking the title or the ownership of the asset.

DIFFERENCE BETWEEN LEASE AND HIRE PURCHASE

Ownership of the Asset: In a lease, ownership lies with the lessor. The lessee has the right to use the equipment and does not have the option to purchase. Whereas in

hire purchase, the hirer has the option to purchase. The hirer becomes the owner of the asset/equipment immediately after the last installment is paid.

Depreciation: In lease financing, the depreciation is claimed as an expense in the books of the lessor. On the other hand, the depreciation claim is allowed to the hirer in the case of hire purchase transaction. **Rental Payments:** The lease rentals cover the cost of using an asset. Normally, it is derived with the cost of an asset over the asset life. In the case of hire purchase, installment is inclusive of the principal amount and the interest for the time period the asset is utilized.

Duration: Generally lease agreements are done for longer duration and for bigger assets like land, property etc. Hire Purchase agreements are done mostly for shorter duration and cheaper assets like hiring a car, machinery etc.

Tax Impact: In the lease agreement, the total lease rentals are shown as expenditure by the lessee. In hire purchase, the hirer claims the depreciation of asset as an expense.

Repairs and Maintenance: Repairs and maintenance of the asset in the financial lease are the responsibility of the lessee but in operating lease, it is the responsibility of the lessor. In hire purchase, the responsibility lies with the hirer.

The extent of Finance: Lease financing can be called the complete financing option in which no down payments are required but in the case of hire purchase, the normally 20 to 25 % margin money is required to be paid upfront by the hirer. Therefore, we call it a partial finance like loans etc.

Businessmen can opt option of lease finance or the hire purchase but they should be analyzed properly as to how much the option suits to the business requirement and situations.

Case study: Buying vs leasing and renting vehicles

A metropolitan-based Community Service Organisation (CSO) Network decided to conduct a study of whether buying or leasing vehicles is more cost-effective. The CSO Network completed comparisons in July 2006 and January 2007 for 8 different types of vehicles manufactured by Ford, Holden and Toyota.

To calculate the cost of buying a vehicle, the CSO Network took into account:

estimated changeover cost

estimated running costs

interest forgone on the money used to buy the vehicle

a vehicle administration fee for managing the vehicle.

To determine the approximate cost of leasing each vehicle, the CSO Network used sample figures from a leasing company.

Buying

The research concluded that buying was more cost-effective than leasing for the selected vehicles. It found that savings of between \$3000 and

\$8000 could be made when buying a car compared to leasing, depending on the model of the car.

The CSO Network emphasised that when buying it is important to put aside the depreciation amount for each vehicle so the organisation has the necessary capital when it is time to replace the vehicle. If the car can be sold for a higher price than the depreciated or written down value, a profit can be made on vehicle changeover but it has become more difficult to do this since the abolition of sales tax and the introduction of GST. Sales tax was at a much higher rate and CSOs did not have to pay it. This gave them a big price advantage in the used vehicle market when recovering purchase costs.

Leasing

The CSO Network acknowledged that the short-term advantage of leasing for CSOs is that it requires a lot less up front capital than purchasing vehicles. However, in the longer term, it can be difficult to change from leasing to buying if the required capital is not available.

Renting

Another option that the CSO Network could have considered in addition to buying and leasing is vehicle rental. A rural-based CSO that provides housing and support services for disadvantaged people decided that vehicle rental was the best option for them.

Some benefits of vehicle rental identified by the rural-based CSO are:

It can be cheaper than finance or operating leases.

You are guaranteed a fixed price for the vehicle during the rental period, an advantage in times of escalating costs.

There is no shortfall at the end of the rental agreement if the resale value of that model has dropped significantly.

It does not require a large amount of vehicle management or administration (as when buying vehicles).

Renting does not require a large amount of up front capital.

It is also very important to note that the option chosen depends on the individual circumstances and priorities of the organisation including such factors as available funding.

Self-Assessment Questions (SAQs) -1

(1) Define Hire-purchase system in your own words. (100 words)

(2) State any FIVE important elements of Hire-purchase agreement.

(3) State whether the following statements are True or False:

(a) The hire vendor has to refund the amount received after repossession of goods due to default in payment by hire-purchaser.

(b) Under hire-purchase system the purchaser becomes the owner of the goods immediately after the down payment.

(c) The last instalment under hire-purchase system comprises cash

price only.

(d) Under hire-purchase system the buyer does not charge the depreciation on the asset till he becomes the owner.

(e) Interest is calculated on the hire purchase price at the given rate of interest

Calculation of Interest

The total payment made under hire-purchase system is more than cash price. In fact, this excess of payment over the cash price is interest. It is very essential to calculate interest because the amount paid for interest is charged to revenue and the asset is capitalized at cash price. Thus normally all instalments will include a part of cash price and a part of interest on the outstanding balance. However the amount paid at the time of agreement (down payment) will not include any interest. The calculation of interest is made under two conditions:

(a) When interest is included in amount of instalment: Where the hire-purchase price i.e. payment made in the form of down payment and all instalments is more than the cash price, it is regarded that the interest is included in instalments. It is explained in the following example.

Worked out Example-1 (Calculation of Interest)

On 1st April, 2005 Mr. X purchased

from M/s Y & Co. one 'Motor Truck' under hire-purchase system, Rs. 5,000 being paid on delivery and the balance in five annual instalments of Rs. 7,500 each payable on 31st March each year. The cash price of the motor truck is Rs. 37,500 and vendors charge interest at the rate of 5 per cent per annum on yearly balances. Find out the amounts of principal and interest included in each instalment.

Solution:

(b) When interest is not included in instalments: Where the total amount paid in the form of down payment and all instalments is exactly equal to the cash price, it is regarded that the interest is not included in instalments. It means that interest is payable in addition to the agreed amount of instalment. It is explained in the following example.

Worked out Example-2

(Calculation of Interest):

On April 1, 2005, A Transport Company purchased a Motor Lorry from Motor Supply Co. Ltd. on hire-purchase basis, the cash price being Rs. 60,000. Rs. 15,000 on signing of the contract and balance in three annual instalments of Rs. 15,000 each on 31st March every year. In addition to it, interest at 5 per cent per annum was also payable to vendors on outstanding balances.

Calculation of Interest				
Calculation of Intt.	Cash Price Rs.	Instalments		
		Principal Rs.	Intt. Rs.	Total Rs.
Cash Price	37,500			
Less paid on delivery	- 5,000	5,000	-	5,000
	32,500			
First Instalment	7,500			
Less Intt. on Rs. 32,500 @ 5%	1,625			
	Principal 5,875	-5,875	5,875	1,625
		26,625		7,500
Second Instalment	7,500			
Less Intt. on Rs. 26,625 @ 5%	1,331			
	Principal 6,169	- 6,169	6,169	1,331
		20,456		7,500
Third Instalment	7,500			
Less Intt. on Rs. 20,456 @ 5%	1,023			
	Principal 6,477	-6,477	6,477	1,023
		13,979		7,500
Fourth Instalment	7,500			
Less Intt. on Rs. 13,979 @ 5%	699			
	Principal 6,801	- 6801	6,801	699
		7,178		7,500
Fifth Instalment	7,500			
Less Amount unpaid	7,178			
	Interest 322	- 7,178	7,178	322
	Total:	x	37,500	5,000
				42,500

Calculation of Interest				
Calculation of Intt.	Cash Price Rs	Instalments		
		Principal Rs	Intt. Rs.	Total Rs.
Cash Price	60,000			
Less: Down payment	15,000	15,000	-	15,000
	45,000			
Ist Instalment	15,000			
Int. @ 5% on 45,000	2,250			
	Total: 17,250	15,000	15,000	2,250
		30,000		17,250
2nd Instalment	15,000			
Int. @ 5% on 30,000	1,500			
	Total: 16,500	15,000	15,000	1,500
		15,000		16,500
3rd Instalment	15,000			
Int. @ 5% on 15,000	750			
	Total: 15,750	-	15,000	750
		15,000		15,750
Total:	Nil	60,000	4,500	64,500

ADMINISTRATIVE STRUCTURE OF GOVERNMENT OF INDIA | Part-9

STATE GOVERNMENT: State governments in India are the governments ruling States of India, and the head of the council of ministers in a state is chief minister. Power is divided between the central government and state governments.

STATE LEGISLATURE: A state legislature that has two houses known as Vidhan Sabha and Vidhan Parishad, is a bicameral legislature. The Vidhan Sabha is the lower house and corresponds to the Lok Sabha. The Vidhan Parishad is the upper house and corresponds to the Rajya Sabha.

STATE EXECUTIVE: The executive branch is the enforcer of law, it enforces laws made or enacted by the legislature, it also held responsibility for the government administrative system, it has the authority to adjourn and dissolve the legislature. The formulation and execution of governmental policies are also the responsibility of the executive.

State Executive consists of Governor and Council of Ministers with Chief Minister as its head.

STATE JUDICIARY: The judicial branch is responsible for interpreting the constitution and laws and applying their interpretations to controversies brought before it.

State High courts have jurisdiction over the whole state, but report to the Supreme Court of India, which may override the high court's judgments and rulings.

High courts:

The Constitution provides for a High Court in every State which works under the Supreme Court of India. But in some cases, one High

Court serves more than one State. For example, the Gauhati High Court serves not only Assam but also the other States of the North-Eastern region.

Composition:

The High Court consists of a Chief Justice and other judges. There is no fixed number regarding the judges of the High Courts. The President may also appoint a qualified person as an additional judge in a High Court for two years.

Appointment:

The President of India appoints the judges and the Chief Justice of a state High Court. While appointing the Chief Justice, he consults the Chief Justice of India and the Governor of the concerned State. While appointing other judges, he consults the Chief Justice of the concerned High Court and also the Chief Justice of India and the Governor of the concerned state. However, their recommendations are not binding upon the President.

Qualifications: To be a judge of a High Court one must be :

- a citizen of India,
- he must have held for, at least ten years a judicial office in the territory of India or;
- he must been for, at least, ten years an advocate of a High Court.

Tenure:

A judge of a High Court retires at the age of 62 years. He may also resign from his office at any time.

Removal:

A judge of a state High Court can be removed by the President on grounds of proven misbehavior or incapacity when each House of the Union Parliament passes a resolution (impeachment

resolution) to this effect. Such a resolution has to be passed by each House by a majority of its total membership and a 2/3rd majority of members present and voting.

Powers and Functions:

The High Courts have been given three types of powers or jurisdictions, such as, original, appellate and administrative.

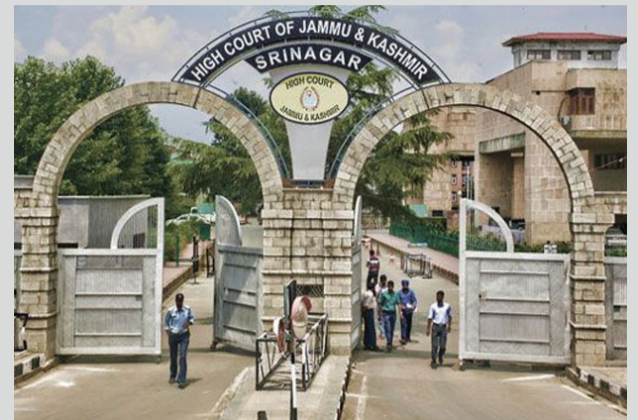
- **Original Jurisdiction** — under the original jurisdiction, a High Court has the power to issue direction or orders including writs to any person, authority and any government within its jurisdiction against the violation of the Fundamental Rights of the citizens. It has limited original jurisdiction in cases relating to admiralty, will, divorce, marriage, company laws and contempt of Court.

- **Appellate Jurisdiction** — under this jurisdiction, a High Court has the power to hear appeals about civil and criminal cases against the decisions of the lower Courts.

- **Administrative Jurisdiction** — under the jurisdiction, a High Court has the authority to supervise the workings of all subordinate Courts. It can issue general rules to regulate their proceedings. The judges of the subordinate Courts are appointed, promoted and transferred in consultation with the High Court of the state.

- **Other Jurisdiction** — (a) The judgments of the High Courts are regarded and considered authoritative and serve as case law. (b) A High Court can start contempt proceedings against anyone who is found to indulge in contempt of the court. (c) Every High Court can admit Public Interest Litigation like that of the Supreme Court of India.

Jammu & Kashmir High Court



The Jammu and Kashmir High Court is the High Court of the Indian state of Jammu and Kashmir. It was established in the year 1928 by letters patent issued by the Maharaja of Jammu Kashmir. The seat of the court shifts between its summer capital Srinagar and winter capital Jammu. The court has a sanctioned judge strength of 14 in which 9 are permanent judges and 5 are additional judges. Chapter IV of the Constitution of Jammu and Kashmir deals with high court.

History:

The High Court of the Jammu and Kashmir state was established on the basis of the Order No. 1 issued by the Maharaja on 26 March 1928. The Maharaja appointed Lala Kanwar Sain as the first Chief Justice and Lala Bodh Raj Sawhney and Khan Sahib Aga Syed Hussain as Puisne Judges. The seats of the High Court were at Jammu and Srinagar. On 10 September 1943, letters patent were conferred on the High Court by the Maharaja. Khan Sahib Aga Syed Hussain was the first Muslim Judge of the High Court. He retired as Home and Judicial Minister of Jammu & Kashmir during the Maharaja Rule.

The Chief Justice:

N. Paul Vasanthakumar (born 15 March 1955) a native of Nagercoil, Kanyakumari District is a judge of the Madras High Court since 2005. He is at present Chief Justice of Jammu and Kashmir High Court.

N. Paul Vasanthakumar was appointed as the Chief Justice of the Jammu and Kashmir High Court on 2 February 2015.

DEMAND ANALYSIS | Part:01

The demand for any commodity, at a given price, is the quantity of it which will be bought per unit of time at the price. From this definition of demand two things are quite clear:

Firstly, demand always refers to demand at a price. If demand is not related to price, it conveys no sense. To say that the demand for mangoes is 100 kg fails to convey any sense. It should be always related to price. Again in the words of Shearman, "To speak of demand of a commodity in the sense of the mere amount that will be purchased without reference to any price will be meaningless."

Secondly, demand always means demand per unit of time. The time may be a day, a week or a month, etc. Therefore, the demand for any commodity or service is the amount that will be bought at any given price per unit of time.

TYPES OF DEMAND:

1. Price demand: Price demand expresses the relationship between the price and demand of a commodity, other things being equal.

2. Income demand: Income demand expresses the relationship between income of the consumer and quantity demanded of a commodity, other things remaining the same.

3. Cross demand: Cross demand expresses the relationship between the quantity demanded of good 'X' and the price of related good 'Y', other things remaining the same. It indicates how much quantity of good 'X' will be demanded at different prices of related good 'Y'. It can be expressed in terms of the following equation:

$$D X = f(P Y)$$

Or Demand for good 'X' is function of the price of good 'Y'.

Related goods are of two types:

(i) Substitutes and

(ii) Complementary.

(i) In the case of substitutes a rise in the price of good Y (say coffee) raises the demand for good X (say Tea). Similarly, a fall in the price of Y (Coffee), the demand for X (Tea) falls. The diagram given below explains it: (See fig1)

When the price of good Y (coffee) increases from OP to OP1 the quantity of good X (Tea) also increases from OQ to OQ1. The cross demand curve DD for substitutes is positively

sloping.

(ii) In the case of complementary: In case the goods are complementary just as pant and shirt, pen and ink, car and petrol etc., a fall in the price of one good Y (say car) will raise the demand for good X (say petrol). Conversely a rise in the price of Y (car) will bring a fall in the demand for X (petrol). This is illustrated in the fig2

When the price of Y (car) falls from OP1 to OP2, the demand for X (petrol) increases from OQ1 to OQ2. The cross demand curve in case of complementary goods $D_y D_x$ is negatively sloping.

4. Joint or complementary Demand: When to satisfy a particular want, two or more than two goods are demanded simultaneously, then such a demand is called joint demand. For instance, to take a snap we need a camera and film, to drive a car we need petrol, tyre, service station, good roads etc. Goods which are jointly demanded are also known as complementary goods. (See fig3)

5. Composite Demand: Composite demand refers to the demand for one commodity in order to satisfy two or more wants. For example, demand for electricity is a composite demand. Demand of electricity for lighting, for factories, for railways, for agriculture etc. Total demand for electricity is known as composite demand. (See fig4)

6. Direct and Derived Demand: When a commodity is demanded for its direct consumption, it is called direct demand. For example, demand for bread to eat, for cloth to wear, for pen to write is direct demand. Derived demand refers to the demand for one commodity as a result of demand for another. For instance, demand for bricks, cement, timber, iron etc., is derived demand as these items are needed for house construction. Derived demand is another form of joint demand. (see fig5)

7. Competitive Demand: Demand for substitutes is known as competitive demand. Substitutes are those goods which can be used for one another. An increased demand for one, means the reduced demand for the other. At a given income, change in the

price of one leads to change in the demand of the other. For example, for Campa and Limca; if price of Campa increases then demand for Limca will rise.

8. Consumers' Goods and Producers' Goods Demands: Consumers' goods are goods used for final consumption, e.g. food items, readymade clothes, houses. Producers' goods are used for production of other goods, such as machines, tools, raw materials. Demand for consumers' goods is also termed as direct demand, as these goods are used directly for final consumption. Demand for producers' goods is derived demand, as these goods are demanded not for final consumption but for the production of other goods. The distinction between consumers' and producers' goods is somewhat arbitrary, for whether a good is a consumers' good or producers' good depends upon its use. For example, if steel is used to make kitchen utensils it is a consumer good while if the same steel is used for making a machine for use in a factory, it is a producers' good.

9. Perishable and Durable Goods' Demand: Both consumers' and producers' goods are further divided into perishable and durable goods. Perishable goods are those which can be consumed only once, while durable goods are those which can be used more than once over a period of time. In other words, perishable goods are themselves consumed while only the services of durable goods are consumed. For example, sweets, bread and milk are perishable consumers' goods; consumables like coal, oil and raw materials are non-durable producers' goods; furniture, refrigerator and car are durable consumers' goods; and machines, tools and factory buildings are durable producers' goods. This distinction is useful because durable products present more complicated problems for demand analysis than non-durable products. Sales of non-durables are made largely to meet current demand, which depends on current conditions. Sales of durables, on the other hand, add to the stock of existing goods, whose services are consumed over a period of time. Their demands fluctuate with business conditions.

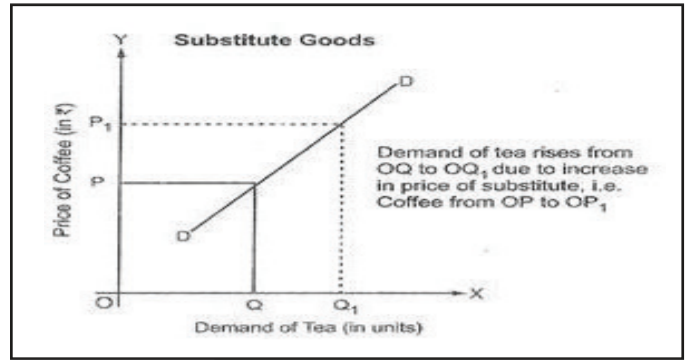


FIG: 01

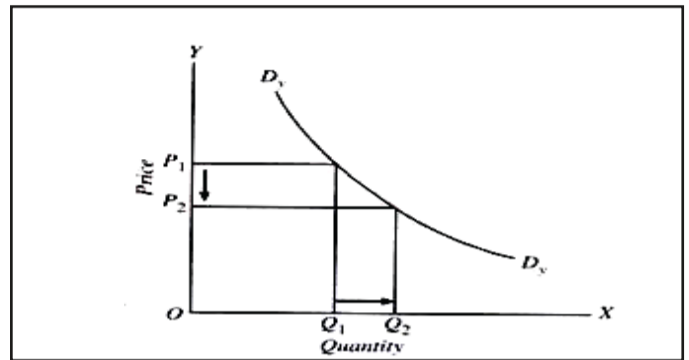


FIG: 01

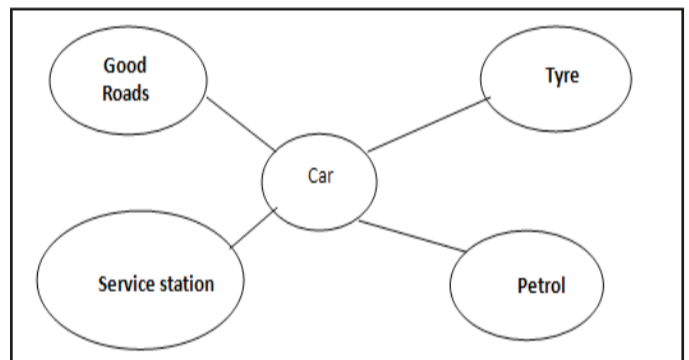


FIG: 01

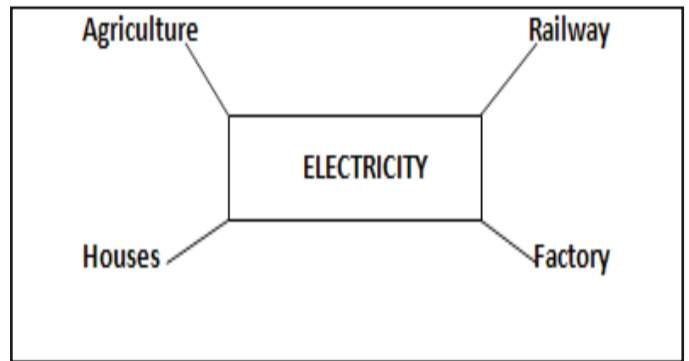


FIG: 01

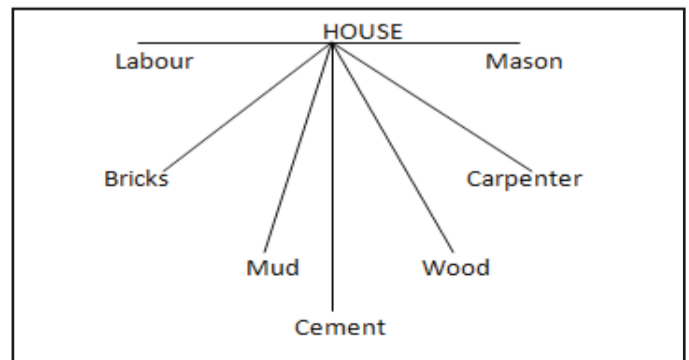


FIG: 01

Education Deptt, AICTE organise workshop on PMSSS

Govt pursuing increase in seats under PMSSS for JK: Naeem Akhtar



Jammu, Feb: Minister for Education, Naeem Akhtar Tuesday said the state government is pursuing for increase in seats under the Prime Minister's Special Scholarship Scheme (PMSSS) to benefit maximum number of students from Jammu and Kashmir.

Speaking at an awareness workshop on PMSS at Women's College Gandhi Nagar here, the Minister said with the sustained efforts of the State Government, the flagship Scholarship scheme, which was earlier marred by various hiccups, is now attracting more and more students and last year around 3500 students get admission in various colleges, including some of the prestigious institutions, outside the state under PMSSS. "Fortunately, far less complaints have been received this year regarding the implementation of the scheme," he said.

Pitching for increase in seats under PMSSS, the Minister said this year more seats would be allocated for technical courses to help students pursue various job-oriented courses. He said that during 2015-16 over 3500 students from Jammu and Kashmir were selected and got admission in some top professional colleges of the country under PMSSS.

He said taking serious note of the complaints of the students about the problems in getting the due benefits after their admission, the state government took up the issue with All India Council for Technical Education (AICTE) and other agencies and streamlined the implementation by isolating certain elements in the process. He said after the corrective measures by the state government in consultation with AICTE not only admission process has been streamlined but issues of students selected in initial areas have also been

addressed to certain extent.

Highlighting the objective of the scheme, the Minister said that it provides path-breaking opportunity for the J&K students for capacity building, education, enabling and empowering them to compete in the routine academic courses, besides enhancing employment opportunities for them. He thanked the Union Human Resource Development Ministry and AICTE chairman Prof Anil D Sahasrabudhe for taking keen interest in ensuring that these objectives are realized and the youth of the state are empowered in the real sense of the term.

A large number of students, college staff and representatives from AICTE attended the workshop, where resource persons sensitized the students about the Scheme by highlighting its objectives.

The Minister also listed various initiatives taken by the state government to give a turn around to educational activities in the state, particularly in the backdrop of the unrest in Kashmir.

He said it is for the first time that full-fledged winter academic activity is going on in Kashmir schools to revive the educational spirit among the students and compensate the loss due to the unrest. He said all the schools across Kashmir valley are open where classes are going on regularly.

"Over 1.10 lakh students are being benefited by the winter tuitions, winter camps and under the innovative Chief Minister's Super 50 coaching over 1000 students are being prepared for NEET and other competitive tests," he added.

The Minister urged all the stakeholders including teachers, parents, institution heads and experts to contribute towards making Jammu and Kashmir real hub of quality education.

The Minister especially thanked AICTE by conducting such awareness workshops to disseminate information amongst the students. He laid stress that by availing this scholarship the students could nourish their dreams to rise high and build good future.

The workshop was jointly

organized by the State's Education Department and AICTE.

Earlier, in his welcome address Commissioner Secretary Higher Education, Dr Asgar Hassan Samoon explained to the audience the main objective of PMSSS which he said is aimed at building capacities of JK youth.

Prof A P Mittal, Member Secretary AICTE also spoke on the occasion and informed the gathering about various initiatives in education.

Ms Madhuri Sahasrabudhe made a power-point presentation on the importance of interaction in developing mutual trust and bonding and shared her personal experiences as a first lady head of an institution.

Prof Anil Sahasrabudhe, Chairman, AICTE guided stakeholders of its selection procedure and eligibility criteria. He laid emphasis that all the students having annual income of Rs 6.00 lakh per annum should avail this scheme.

Principal Secretary School Education, Mr Shalin Kabra also addressed the workshop.

Information brochures about PMSSS were also distributed among the students on the occasion.

The workshop was attended by Director Colleges, Higher Education Department, Director School Education, Prof. Dileep Malkhede, Adviser AICTE, A.K.Singh, HOD, School of Architecture and Landscape, SMVDU Katra, Mr. Anand Sharma, Dy Director RIFD-PMSSS, Mr. R.K.Ganju, Asstt. Director, RIFD-PMSSS, Ms Mithilesh, Representative of Nursing Council of India, Dr R S Rathore, Regional Officer AICTE, New Delhi, Registrar Central University of Kashmir, Nodal Principal, Principals of Higher Secondary Schools of Jammu Division and other eminent members of the society. Mr Ajit Angral, Principal Science College, presented formal vote of thanks while Dr Kiran Bakshi, Principal, Govt. P G College for Women, Gandhi Nagar, Jammu welcomed the guests.

HRD to bring 'graded regulatory mechanism' in UGC: Javadekar

NEW DELHI: The HRD ministry will bring in a "graded regulatory mechanism" as part of key reforms in the University Grants Commission (UGC) to usher in greater transparency, freedom and autonomy, Union minister Prakash Javadekar said on Sunday. The HRD minister also announced that 'SWAYAM', an open web based platform from which 2000 courses will be run for students across the country, will be launched next month. Referring to the Union Budget 2017, Javadekar said that it reflects the government's vision of raising quality in the education sector, which has got additional funds this time to the tune of Rs 6,000 crore.

He said that as per the Right to Education Act, learning outcomes are being defined and will be part of the coming academic session.

Another initiative is an innovation fund of Rs 100 crore for schools which will be introduced in educationally backward districts, he said.

He said a separate exam agency has also been announced which will conduct major exams, many of which are being conducted by an "overburdened" CBSE, he said. The CBSE's main focus is to look after school education. Speaking about UGC reforms, Javadekar said that thrust is to give more autonomy to good institutes and "monitor mid-level and monitor more those in the lower rungs".

Every child in school and learning well

Srinagar, Feb 08 (KNS): In order to improve the basic reading and arithmetic levels of children across India and in J&K state a non-governmental organisation, PRATHAM has taken initiative to train the teachers with innovative techniques and ideas.

PRATHAM is working since 1994, across India and in Kashmir it started its operations in 2015. Since beginning, Pratham has been trying to work with Government and run independent projects to improve the learning levels throughout the Country.

It initiated its program in Jammu and Kashmir in collaboration with the district administration of Bandipora in 2015-16. Combined Activities for Maximized Learning (CAMaL) – a pedagogy innovated by Pratham was adopted by 120 government schools.

The program aimed to build foundational skills of children from grades 3 to 5 in three subjects – Language (Urdu), Mathematics and English. After successful implementation of the program in Bandipora, the Education Department of Jammu and Kashmir has decided to scale up the program in 10 districts of the state in the year 2016-17.

Methodology
The CAMaL methodology is often described as Teaching at Right Level (TaRL). The TaRL framework is a guideline for teachers to lead learning activities that build up students' competencies for specific and measurable learning outcomes. The pedagogy is targeted at children in standards III, IV, and

V with a special focus on those who have not reached a standard 2 level in reading or arithmetic.

Throughout the entire process, children's progress is assessed through ongoing simple measurement of children's ability to read, write, and comprehend and do basic arithmetic. TaRL activities are organized in ascending levels of competency for students to move up through. The combination of competencies, directions of learning, and classroom dynamics together constitute a whole learning experience for students to achieve specified learning outcomes.

Program Objective
To improve the reading, writing and basic arithmetic skills of children between 6-14 years, through TaRL framework.

All government schools in 10 districts of Kashmir – Baramulla, Kupwara, Srinagar, Bandipora, Ganderbal, Budgam, Anantnag, Pulwama, Kulgam and Shopian.

The program in 10 districts of Kashmir is being implemented under the direct leadership of Director of School Education, Kashmir.

As a part of the program, more than 25,000 government school teachers are being trained in Pratham's CAMaL methodology. The teachers will implement the teaching learning methodology in 9000+ schools from June to November 2016.

Pratham is building a strong team of 10 state level personnel and 40-45 district level personnel to support government in ensuring efficient and impactful implementation of the program.

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Cluster Universities..

in the state under centrally-sponsored Rashtriya Ucchar Shiksha Abhiyan (RUSA) to run series of additional and novel courses in the existing colleges, with one of the colleges each in Srinagar and Jammu acting as the Lead College.

The Cluster University in Jammu comprises GGM Science College, Government MAM College, SPMR College of Commerce, Government College for Women, Gandhi Nagar and Government College of Education Canal Road.

Similarly, the Cluster University in Srinagar comprises Amar Singh College Srinagar, SP College Srinagar, Women's College MA Road Srinagar, Government Degree College Bemina and the College of Education, Srinagar.

While in Jammu GGM Science College is the Lead College for the new Cluster University, in Srinagar Amar Singh College is the Lead College for Cluster University, Srinagar.

A grant of Rs 55 crore each has been provided under RUSA for development of additional infrastructure for these Cluster Universities.

The State Government has already created 124 posts for these Universities and has appointed Vice-Chancellors and Registrars for these institutions.

ReT Teachers....

at Nishat Park and marched towards Mini-secretariat Bandipora to mark a protest against the government.

The protesting ReT teachers were demanding release of their salaries pending, which according to them are pending from past seven months.

The protesters said they are without salaries from past seven months while the government doesn't even bother to look into the sufferings faced by the ReT teachers whose salaries have been withheld for unknown reasons.

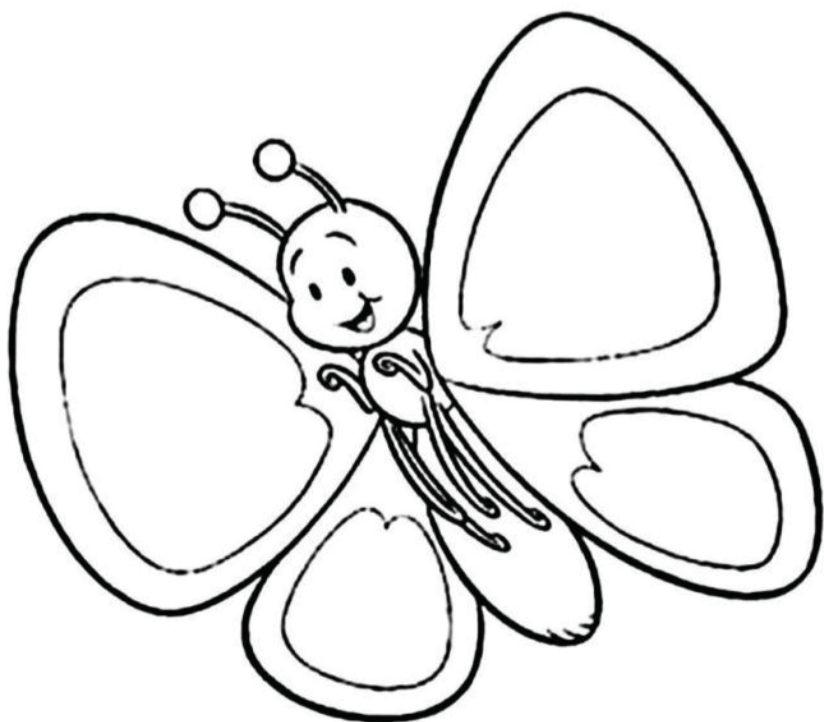
"It is unfortunate that despite serving the department with dedication, the government has withheld our salaries and are paying no heed over our sufferings," the ReT teachers said, adding that the government must release their salaries as soon as possible.

The protesters said that they approached the higher ups but unfortunately nothing has been done in this regard. "We appeal to the Chief Minister, Mehbooba Mufti and Minister Concerned, Naeem Akhtar to look into the matter and release our salaries at earliest," the aggrieved teachers said.

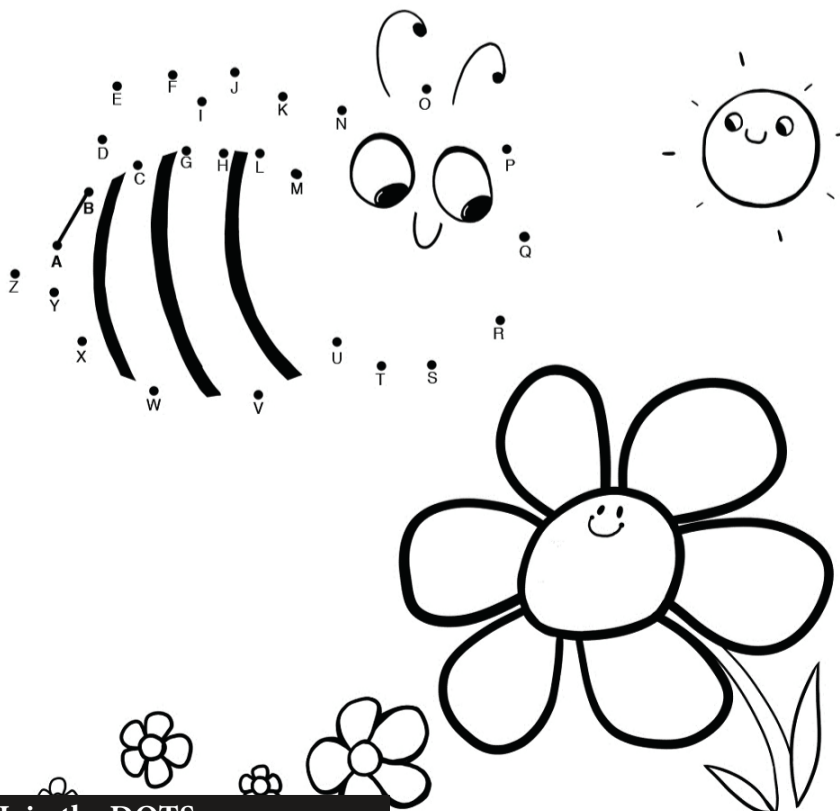
The protesters said that the ReT teachers are being subjected to face hardships.

Meanwhile, the protesting ReT teachers later dispersed peacefully.

KIDZ



Color the Picture



Join the DOTS

EDUCATION AROUND THE WORLD

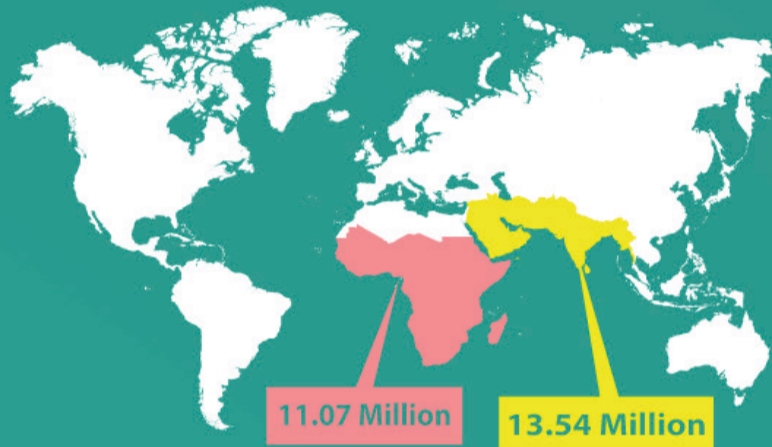
There are **1.4 Billion** students on Earth.



Only **65.2 Million** educators Globally.

THE CHALLENGE: *Too many children remain out of school, and those who are in school aren't learning the skills they need for life and work.*

Children leaving school before completing their Primary Education



In the Sub-Saharan, 11.07 million children leave school before completing their primary education. In South and West Asia, that number reaches 13.54 million.

Children out of primary school



61 Million children are still out of primary school.



32 Million of these children are Girls.



1 in 5

15 to 24 years old has not completed primary school and lacks skills for work.

An estimated

250

million children are not able to read or write.



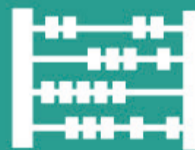
The poorest and most marginalized are the most affected.



In some emerging economies,

3 in 10

youths cannot do basic arithmetic.



Fragile and conflict-affected countries account for more than

30%



of all children not completing primary school

In some developing countries, one quarter to one-half of youth who have graduated from primary school cannot read a single sentence.



OF THE 775 MILLION ILLITERATE ADULTS

TWO-THIRDS ARE WOMEN



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