

JANUARY 5 POLLS

Does it violate the constitution?

SHAKHAWAT LITON

THE Supreme Court in a verdict on the CTG system has said free, fair and neutral election is one of the fundamental structures of the constitution. But the way the government is manipulating the January 5 election has raised question whether this election has gone against this basic structure of the constitution.

In a compromised election the ruling Awami League has ensured that their candidates win uncontested in more than half of the 300 constituencies. There are allegations of ruling AL nominees forcing rival candidates in some constituencies to withdraw. There are also complaints that the returning officers in some districts have pressed many candidates to withdraw their nomination on instructions from government high-ups.

Many candidates of HM Ershad's Jatiya Party were kept forcibly in the electoral race even after Ershad's decision to boycott the election. Returning officers rejected their applications for quitting the polls. Moreover, Ershad was kept confined in CMH since December 12 for his stance on boycotting the election.

In the Constitution's 13th amendment case verdict delivered in May 2011, then Chief Justice ABM Khairul Haque said that free, fair and neutral election is undoubtedly a basic structure of the constitution. Justice SK Sinha, who agreed with Justice Khairul Haq's judgment said, "There is no doubt that democracy is one of the basic features of the Constitution but how the country will be run by a government which is not democratically elected by the people? The Constitution abhors any system of governance other than a government which is elected by the people."

Justice Abdul Wahab Miah did not agree with Justice Khairul Haque but he unequivocally supported the then chief justice's observation on the constitution's fundamental structures. He said, "We should not confuse between two things, democracy and Parliament. Free and fair election is part of democracy and a fundamental structure of the Constitution. And Parliament is the product of democratic process through a free and fair election. So, in the absence of free and fair election, Parliament cannot have real legitimacy and cannot be said to be sovereign as well and in such Parliament, people will have no representation." In such a situation, Justice Wahab further said, they cannot be called people's representatives. He also added that parliament consisting of such members cannot be called a parliament in its true sense within the meaning of clause (1) of article 65 of the constitution, and such Parliament cannot materialise the aspirations and the dreams of our forefathers and the martyrs who sacri-

ficed their lives in the liberation struggle in 1971."

Justice Nazmun Ara Sultana, who was a member of the Appellate Division, concurred with the judgement and order passed by Justice Wahab Miah. She did not make any observation. Present Chief Justice Muzammel Hossain concurred with the judgment and order passed by Justice Khairul Haque, but he refrained from making further observation.

Justice Muhammad Imman Ali, who disagreed with Justice Haque, however said, a free and fair parliamentary election, is the fundamental basis for democracy, a basic feature of our constitution.

Jurists like Rafiq-ul Huq, Shahdeen Malik and Prof Sarkar Ali Akkas are of the view that the way the January 5 election is being held stands against the constitution's basic structure in light of the apex court's observation. The election was described by them variously as a selection, unconstitutional and legally invalid.

PM and her colleagues in the cabinet and ruling alliance have been saying that the election is being held to uphold the constitution. But if one goes through the Supreme Court's verdict, one may ask whether the constitution is being upheld or being undermined by the January 5 polls?

The government of Sheikh Hasina has used the apex court's verdict to abolish the non-partisan election time CTG by amending the constitution in June 2011. The cancellation of the CTG system allowed her government to stay in power during election. But this has generated the present political crisis centring on the parliamentary election.

BNP-led opposition alliance does not want an election with Hasina as the poll-time government head and has boycotted the January 5 polls. It has been enforcing mindless road blockade countrywide since announce of the election schedule on November 25. At least 120 people were killed in political violence in less than one month.

Despite all these, the PM and her colleagues in the cabinet and ruling alliance have been saying that the election is being held to uphold the constitution. But if one goes through the Supreme Court's verdict, one may ask whether the constitution is being upheld or being undermined by the January 5 polls?

The writer is a Senior Reporter, The Daily Star.

Printing food for consumption!

S. ASHRAF AHMED

CONSIDER yourself as a publisher, and you have to be at the press for twenty four hours to ensure accurate and timely publication of a book! Do you have to go hungry? Or you wished to savour the most delicious meal of a restaurant at the other end of the world but you do not have the ability to go there. Would you go drooling? Well, a solution to such problem is on the way!

A three-dimensional or 3-D printer in the press next to your 2-D printer will make pizza, pancake or ice cream at the touch of a button. The same 3-D printer should also make the most delicious meal if its recipe is fed into the machine's memory, say from Seattle in Washington state!

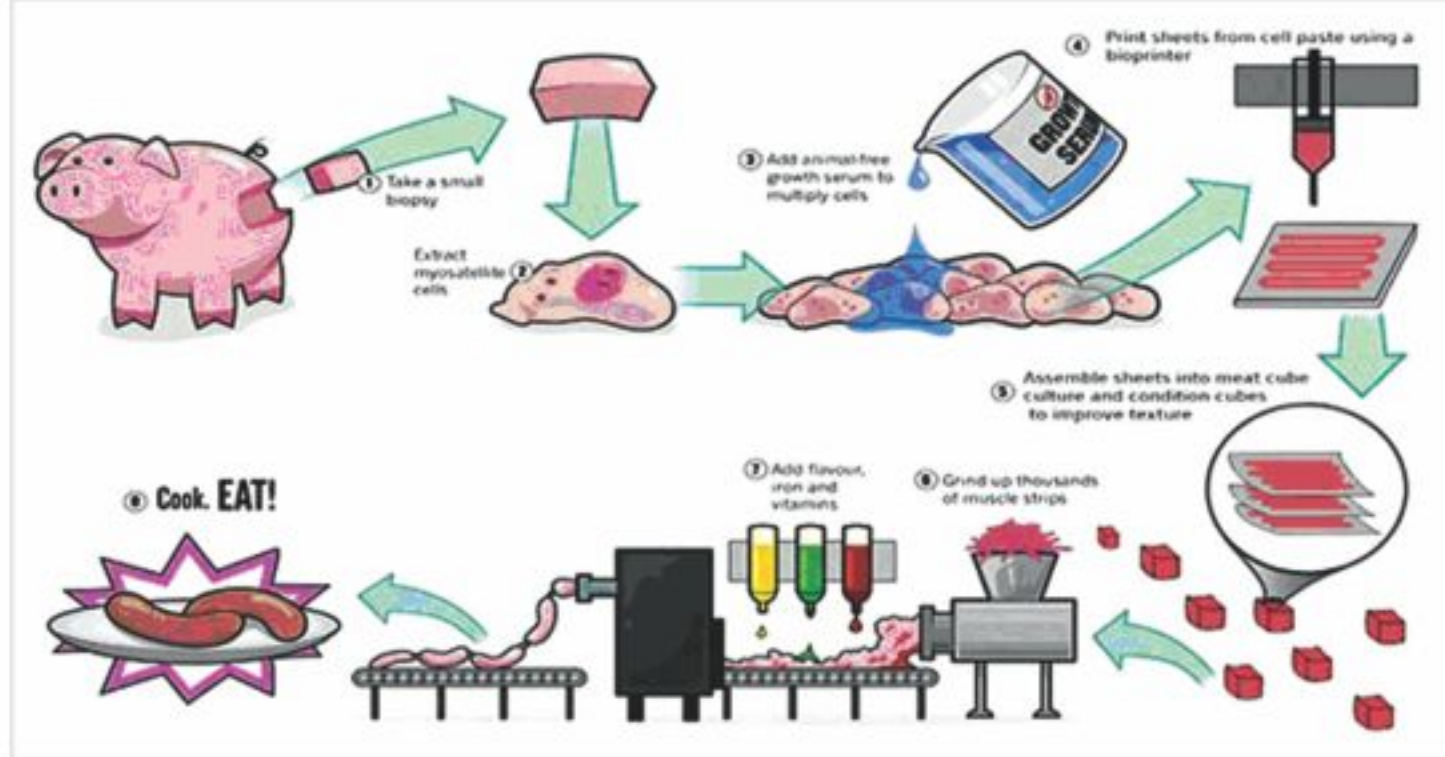
A printer will make food? Yes, not only food, a 3-D printer theoretically will make anything you want -- toy, fabric, or ornament, or even your heart, not sweet-heart though! Soon you should be able to make your eye or kidney if one becomes defective. Of course you will need a surgeon because although you can eat the food by yourself, you should not do a replacement or transplant surgery on yourself. These later biological devices can be made in what is called 3-D bioprinters.

Our normal printers can write only in two dimensions lengthwise and widthwise. A 3-D printer adds a height or thickness above length and width. You must have seen the simplest 3-D printing in embossed wedding cards. The 3-D printing being discussed here uses a virtual model of almost anything in the memory of the printer. The printer is hooked with reservoirs of plastic, colours, metal, ceramic, cell, cellular or food components, or anything that is contained in the virtual model.

In bioprinting, aggregates of tens of thousands of live cells are "printed" or layered on top of another in a specific pattern, and allowed to fuse together naturally.

Founder of Modern Meadow, a company pioneering bioprinters said that our current meat consumption requiring 60 million farm animals will nearly double by 2050, pushing us to the limits of the earth's land, water, carbon and other resources. His proposed solution is to create a 3-D bioprinting machine that would use cultured cells as "ink".

Once a cell mass has been excised from an animal, it is possi-



ble to keep on making the same cell in the laboratory for months! The "ink" will be digitised and layered one on top of the other for tissue growth. The tissue then can be given the form of a stake, or further processed as minced or sausage. Flavour, colour or specific taste materials can be added during or after the 3-D printing process to cater all types of consumers. Making meat this way will avoid consumption of live animals, and therefore, of earth's resources.

An article published in the Popular science magazine on November 1 mentioned of an EU study which predicted that If produced in large scale, lab grown meat would use 99.7%, and 94% less land and water, respectively, than farm meat, and would contribute 98.8% less green house gasses.

The main step in the Modern Meadow's concept has already been realised. In a major breakthrough in February, researchers

were able to fabricate a 3-D bioprinting machine using human embryonic stem cells as "ink" to consistently produce high quality spheroidal aggregates. This success has the great potential of making unlimited supply specialised tissues and human organs should it become necessary.

The second step of the Modern Meadow's concept is already in the market. You can have a personalised chocolate of flavour, taste, colour, shape and design, and even have your name printed on it. A recipe and demonstration for making pancake or cookie is already available free in the net!

What is remaining is the actual meat product with a mouth watering taste.

In another development, the US space agency NASA has awarded a grant to a private company to device a 3-D printing machine to produce fresh meals for astronauts while in space. This technology is based on layering one component on top of another, for example, dough, then oil, then minced meat or other nutritionally rich components. Therefore making pizza or sandwich or hot dog will be the first step. Developer of the technology envisions a much wider user in feeding the hungry millions in famine and disaster-prone areas.

So let us have patience for a meal from a 3-D printer, but for now you can buy a printer at less than \$500!

The writer is working as a biomedical scientist in the USA.

Decoding Pakistan National Assembly Resolution

ZIAUDDIN CHOUDHURY

OUR indignation at the resolution of the Pakistan National Assembly criticising the trial and punishment of a war criminal in Bangladesh is well understood. Equally well understood is Pakistan establishment's support to this resolution because the war criminal belonged to the political party that opposed our Liberation War. But why now?

The trial of war criminals has been going on for last three years, and people in the dock include many belonging to the same loyalist party. Some of those in the dock have been already sentenced by the court to life imprisonment or death. What prevented the Pakistan National Assembly or the political parties that supported the resolution from crying foul earlier? Does this timing of the resolution have something to do with the mayhem and anarchy launched in Bangladesh by some elements in the name of political protest?

Actually the proponents and supporters of the Pakistan Assembly resolution denouncing a purely internal legal process of Bangladesh are successors to military- feudal political axis that was responsible for the breakup of Pakistan. This axis had launched the war on the then East Pakistan and had killed millions of innocent civilians with active support from their loyalists.

A sad part of this duplicitous war was that a section of general public were misled in the name of Islam in the belief Pakistan represented Islam and its true followers. They supported Pakistan and the Army's actions because they believed a breakup of Pakistan would be tantamount to the destruction of the country founded on religion.

The Pakistan Junta did not stop by simply brainwashing its people and its loyalists in the East Wing with its false propaganda of Islam in danger, and by characterizing the war in East Pakistan as fighting with foreign infiltrators. It sent out its emissaries abroad, in particular other Muslim countries with the message that its fight in East Pakistan was nothing but putting down an internal rebellion. Later it would escalate the term to putting down a secessionist attempt (accepted initially by some western countries including the US) to draw sympathies from Islamic nations. The Islamic nations, some of whom (like Turkey) had similar experience in the past, empathized with this line of propaganda, and never expressed support for our liberation effort. In fact many would carry this displeasure even after emergence of the second largest Muslim country

named Bangladesh.

One would like to believe that a propaganda that failed to save a country more than forty years ago would meet its natural death, and Pakistan would forge ahead putting the lie behind it. The Pakistan National Assembly resolution unfortunately negates that belief.

There may be many explanations for Pakistan Establishment's reaction, two of them are worth mentioning. First, the political scene that emerged in Pakistan since Bhutto's demise. The country has been ruled by two military dictators for nearly half of this period. The first of the two dictators, General Ziaul Huq corralled support of different religious groups to buttress his rule in a pseudo-democracy and allowed growth of seminaries that would later spawn militant groups seeking establishment of a religious state. Second is the feudal base of the incumbent government in Pakistan which draws a significant amount of support from religious parties in Pakistan. So it is quite usual that the government will raise voice in support of their cohorts in Bangladesh.

Our concern should be the timing of this protest and its underlying threat... this is a sign to all the loyalists of a lost cause to regroup and fight.

Our concern should be the timing of this protest and its underlying threat. The radical forces that General Ziaul Huq helped grow in Pakistan have stretched their foot beyond the border, unfortunately also in Bangladesh. The current political crisis in Bangladesh is offering an opportune moment for the radical forces in Pakistan and their allies in the establishment to resuscitate themselves and make inroads into Bangladesh politics. The outcries heard from the Pakistan National Assembly are only an echo of the forces that would like to see a radical transformation of Bangladesh from a secular democracy to a country that they wanted to be founded on their ideology. This is not simply a resolution denouncing the capital punishment of a fellow party man, this is a sign to all the loyalists of a lost cause to regroup and fight. I wonder if our leaders of both parties can read this sign.

The writer is a US based political analyst and commentator.

Precession of the equinoxes and constellations of the zodiac

QUAMRUL HAIDER

ALTHOUGH the Earth revolves around the Sun, from our point of view we see the Sun moving around the sky along an imaginary circle called the ecliptic once every 365.256 days. This is known as the sidereal year. The ecliptic crosses the equator twice a year. On March 20, known as the vernal (spring) equinox, the Sun starts its northward journey from the equator toward the Tropic of Cancer. The interval of time from one vernal equinox to the next, known as tropical year, is 365.242 days. The southward motion of the Sun from the equator starts on September 22 and the day is called autumnal equinox. On these dates, day and night become equal at all latitudes.

Earth is not a perfect sphere; it is an oblate spheroid, with an equatorial diameter 43 kilometers larger than the polar diameter. The gravitational effects of the Sun, Moon, and other planets on the Earth's equatorial bulge cause the Earth's rotational axis to sway clockwise in a slow circular motion similar to that of a spinning top. Historically, this motion of the axis is called "precession of the equinoxes" because the equinoxes move westward along the ecliptic relative to the fixed stars, opposite to the motion of the Sun. The time taken by the axis to complete one swing is about 26,000 years. If the Earth were perfectly spherical, precession would not occur.

Precession is of minor importance in day-to-day life, but over long periods of time, its effects are observable. Because of the precession, the apparent position of the Sun relative to the backdrop of the stars at some seasonally fixed time, e.g. the vernal equinox, moves from one zodiacal constellation into a new one every 2,166 years. This is known as the "astrological age." It takes the Sun approximately 26,000 years to move through all 12 constellations of the zodiac.

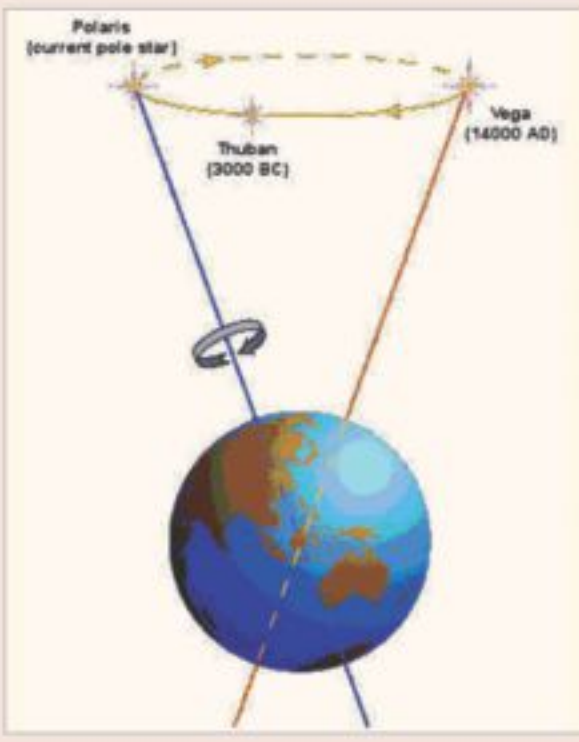
A major consequence of precession is that the zodiac signs do not now correspond with the constellations of the same name. For example, astrologically I am an Aquarius, but astronomically I am a Capricorn.

In 3000 B.C., the Sun appeared in Taurus at the vernal equinox and entered Aries in 1900 B.C. Presently the vernal equinox is in the constellation Pisces and is slowly approaching Aquarius. This is the origin of the so-called "Age of Aquarius" when, according to astrologers, there will be unusual harmony and understanding in the world.

Due to precession, the Sun's apparent position relative to the vernal equinox slowly regresses about 50 arc seconds (0.014 degree) every year, or approximately one degree every 72.2 years. This results in the difference of 20 minutes between the sidereal and tropical years.

Precession also causes the North Pole star to move in circles

Constellations of the Zodiac	Astrology Dates	Astronomy Dates
Aries	March 21 – April 20	April 19 – May 13
Taurus	April 21 – May 21	May 14 – June 19
Gemini	May 22 – June 21	June 20 – July 20
Cancer	June 22 – July 22	July 21 – August 9
Leo	July 23 – August 23	August 10 – September 15
Virgo	August 24 – September 23	September 16 – October 30
Libra	September 24 – October 23	October 31 – November 22
Scorpio	October 24 – November 22	November 23 – November 29
Ophiuchus		November 30 – December 17
Sagittarius	November 23 – December 22	December 18 – January 18
Capricorn	December 23 – January 20	January 19 – February 15
Aquarius	January 21 – February 19	February 16 – March 11
Pisces	February 20 – March 20	March 12 – April 18



against the backdrop of stars. While today it is Polaris, 5000 years ago it was Thuban in the constellation Draco. In about 14,000 A.D., it will be Vega in the constellation Lyra. In 27,000 A.D., it will again be Polaris.

Precession may also cause climate changes. The Earth is currently nearest the Sun when it is winter in the Northern Hemisphere. In 13,000 years, the Northern Hemisphere will be farthest from the Sun during the winter months. This will make

winters much colder in the Northern Hemisphere.

The writer is a Professor of Physics at Fordham University, New York.

By THOMAS JOSEPH

ACROSS

1 Germany's capital

7 Cain's victim

11 Galahad's mother

12 Secluded valley

13 Setting items

15 Number of people

16 Come together

18 Walk of Fame article

21 Fly high

22 Toadies

24 Wilder's "Town"

25 Down in the dumps

26 "Not a million years!"

27 Open with a key

29 Beach Boys hit "Around"

30 Beginner

31 Imitate a rodent

32 Worry

34 Piano technicians' tools

40 Mile or meter

41 Canadian coin

42 Dances jazzily

43 Book blunders

DOWN

1 Nap site

2 Yale student

3 Sprinkled

4 Hang around

5 Sluggish

6 Notorious emperor

7 Makes one's own

8 person

9 Caribou's cousin

10 French coin

14 Combined by melting

16 Camera support

17 Before dawn

19 Friendly señorita

20 Make fresh

21 Old French

22 Shaggy beast

23 Washington baseballer, for short

25 Derision

28 Planet paths

29 Not fresco

31 Really like

33 Gawk at

34 Ricketty boat

35 One, for Juan

36 Winter air quality

37 Gene messenger

38 Young fox

39 Yacht spot

Yesterday's answer

1 GERMANY
2 YALE
3 VICTIM
4 MOTHER
5 VALLEY
6 EMPEROR
7 MAKE
8 PERSON
9 COUSIN
10 FRENCH
14 COMBINED
16 CAMERA
17 BEFORE
19 SEÑORITA
20 MAKE
21 OLD
22 BEAST
23 BALLER
25 DERISION
28 PLANET
29 NOT
31 REALLY
33 GAWK
34 BOAT
35 ONE
36 WINTER
37 GENE
38 FOX
39 SPOT

A XYDLBAAXR is LONGFELLOW

One letter stands for another. In this sample, A is used for the three L's, X for the two O's etc. Single letters, apostrophes, the length and formation of the words are all hints. Each day the code letters are different.

11-18 CRYPTOQUOTE

L RFDS KLY UFOXVD VN RFY.

ITV XS FD VRFBLS L UNNP

RXN XLD YN EPLY UNZ

ENDDFIPS ASUSLV. — PNTFD

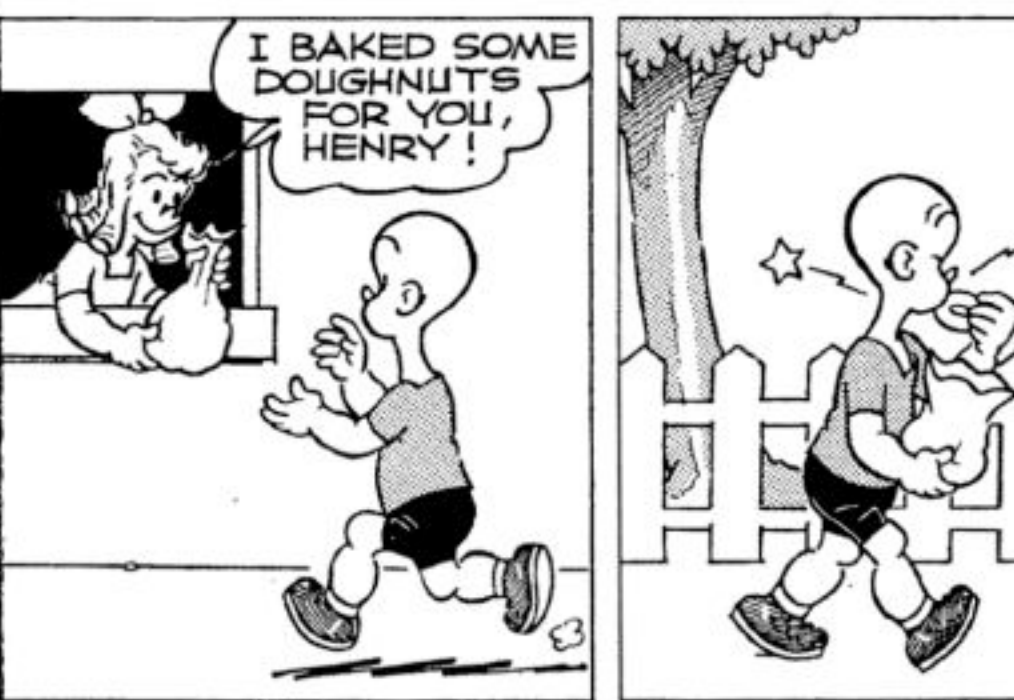
P'LKNZT

Yesterday's Cryptoquote:
DON'T BROOD. GET ON WITH
LIVING AND LOVING. YOU DON'T
HAVE FOREVER.
-- LEO BUSCAGLIA

BEETLE BAILEY



HENRY



by Mort Walker

by Don Trachte

QUOTABLE Quote

"It has been my experience that maximising income is a helluva lot less important than maximising passion and fulfilment in your both professionally and personally."

John Green