

DAV PUBLIC SCHOOL UPPAL'S SOUTHEND SECTOR 49, GURGAON

ACADEMIC PLAN

CLASS XII POLITICAL SCIENCE (THEORY)

Time: 3 Hours

M.M. 80

A. Theory

Units		Marks: 80
	Part A: Contemporary World Politics	
1	Cold Era	12
2	The end of bipolarity	
3	US Hegemony in World Politics	12
4	Alternative centres of Power	
5	Contemporary South Asia	
6	International Organizations	8
7	Security in Contemporary World	
8	Environment and Natural Resources	8
9	Globalization	
	Total	40
	Part B: Political Theory	
10	Challenges of Nation Building	12
11	Er of One- Party Dominance	
12	Politics of Planned Development	
13	India's External relations	6
14	Challenges to the Congress System	10

Units		Marks: 80
15	Crisis of the Democratic Order	
16	Rise of Popular Movement	12
17	Regional Aspirations	
18	Recent developments in Indian Politics	
	Total	40

B. Project Work: 20 Marks

Grand Total = 100

COURSE CONTENT

MARCH

1. **Cold Era(14 Periods)**

Emergence of two power blocs after the second world war. Arenas of the cold war. Challenges to Bipolarity: Non-Aligned Movement, quest for new international economic order. India and the cold war

2. **The End of Bipolarity(13 periods)**

New entities in world politics: Russia, Balkan states and Central Asian states. Introduction of democratic politics and capitalism in post-communist regimes. India's relations with Russia and other post-communist countries.

APRIL

3. **US Hegemony in World Politics (13 Periods)**

Growth of unilateralism: Afghanistan, first Gulf War, response to 9/11 and attack on Iraq. Dominance and challenge to the US in economy and ideology. India's renegotiation of its relationship with USA.

4. **Alternative Centres of Power(11 Periods)**

Rise of China as an economic power in post-Mao era, creation and expansion of European Union, ASEAN. India's changing relations with China.

MAY

5. **Contemporary South Asia in the Post-Cold War Era**

Democratization in Pakistan and Nepal. Ethnic conflict in Sri Lanka, Impact of economic globalization on the region. Conflicts and efforts for peace in South Asia. India's relation with its neighbors.

6. **International Organizations(13 Periods)**

Restructuring and the future of the UN. India's position in the restructured UN. Rise of new international actors: new international economic organizations, NGOs. How democratic and accountable are the new institutions of global governance?

7. **Security in Contemporary World (11 Periods)**

Traditional concerns of security and politics of disarmament. Non-traditional or human security: global poverty, health and education. Issues of human rights and migration.

8. Environment and Natural Resources (11 Periods)

Environment movement and evolution of global environmental norms. Conflicts over traditional and common property resources. Rights of indigenous people. India's stand-in global environmental debates.

JULY

9. Globalization (11 Periods)

Economic, cultural and political manifestations. Debates on the nature of consequences of globalization. Anti-globalization movements. India as an arena of globalization and struggle against it.

Part – B: Politics in India Since Independence

10. Challenges of Nation-Building (13 periods)

Nehru's approach to nation-building; Legacy of partition: challenge of 'refugee' resettlement, the Kashmir problem. Organization and reorganization of states; Political conflicts over language.

11. Era of One-Party Dominance (12 periods)

First three general elections, nature of Congress dominance at the national level, uneven dominance at the state level, coalitional nature of Congress. Major opposition parties.

AUGUST

12. Politics of Planned Development (11 periods)

Five-year plans, expansion of state sector and the rise of new economic interests. Famine and suspension of five-year plans. Green Revolution and its political fall outs.

13. India's External Relations (13 periods)

Nehru's foreign policy. Sino-Indian war of 1962, Indo-Pak war of 1965 and 1971. India's nuclear programme. Shifting alliance in world politics

SEPTEMBER

14. Challenges to the Congress System (13 periods)

Political succession after Nehru. Non-Congressism and electoral upset of 1967, Congress split and reconstitution, Congress' victory in 1971 elections, politics of 'garibi hatao'

REVISION AND FIRST TERM EXAMINATION

OCTOBER

15. Crisis of the Democratic Order (13 periods)

Search for 'committed' bureaucracy and judiciary. Navnirman movement in Gujarat and the Bihar movement. Emergency: context, constitutional and extra-constitutional dimensions, resistance to emergency. 1977 elections and the formation of Janata Party. Rise of civil liberties organizations.

16. Popular Movements in India (11 periods)

Farmers' movements, Women's movement, Environment and Development-affected people's movements. Implementation of Mandal Commission report and its aftermath.

17. Regional Aspirations (11 periods)

Rise of regional parties. Punjab crisis and the anti-Sikh riots of 1984. The Kashmir situation. Challenges and responses in the North East.

NOVEMBER

18. Recent Developments in Indian Politics(13 periods)

Participatory upsurge in 1990s. rise of the JD and the BJP. Increasing role of regional parties and coalition politics.

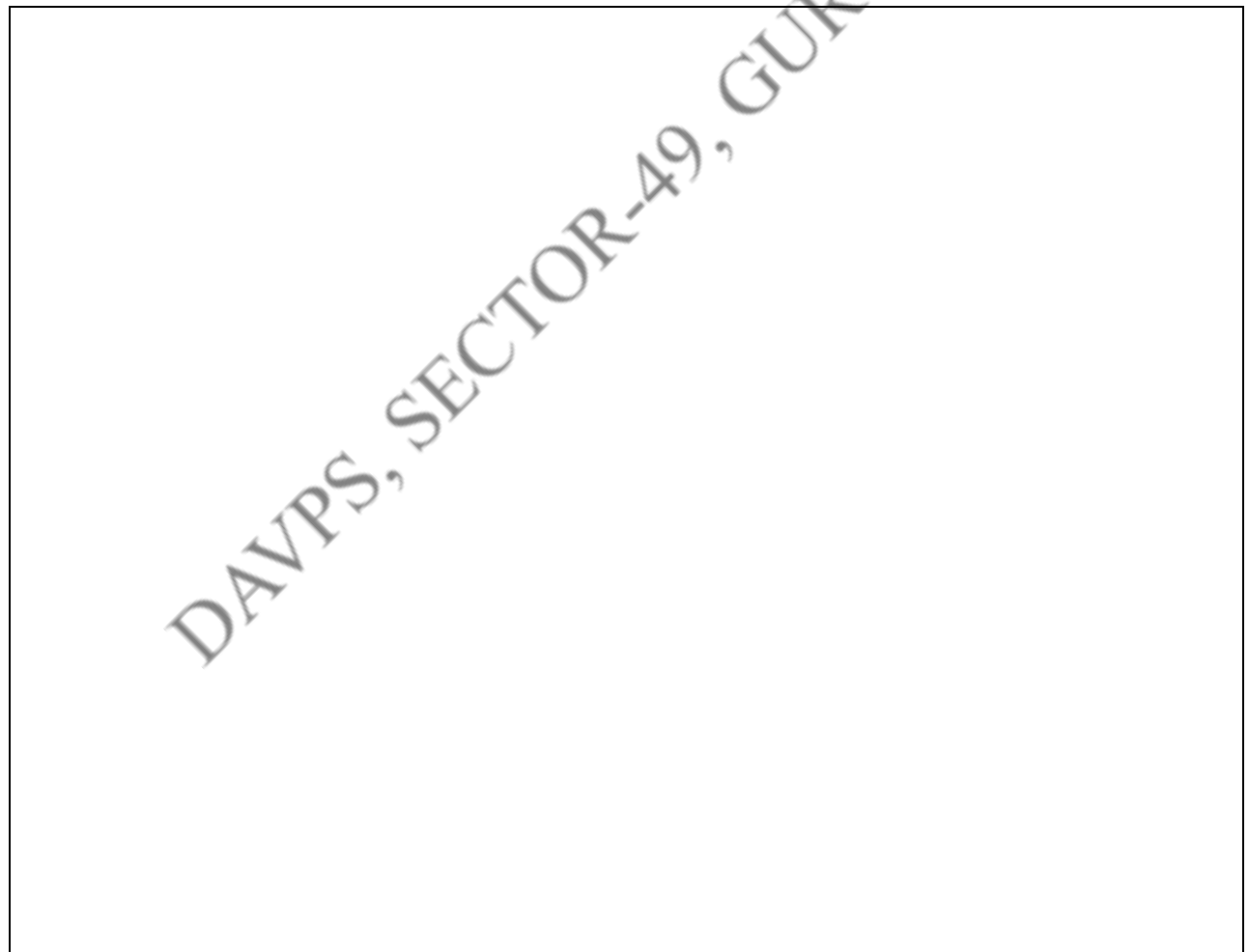
Coalition governments:
NDA (1998-2004)
UPA (2004-2014)
NDS (2014 onwards)

DECEMBER/JANUARY

REVISION AND EXAMINATION

Prescribed Books:

1. Contemporary World Politics, Class XII, Published by NCERT
2. Politics in India since Independence, Class XII, Published by NCERT



MARCH

Unit-VI REPRODUCTION IN ORGANISMS

Chapter-1: Reproduction in organisms

(7 periods)

Chapter-1: Reproduction in Organisms

Reproduction, a characteristic feature of all organisms for continuation of species; modes of reproduction - asexual and sexual reproduction; asexual reproduction - binary fission, sporulation, budding, gemmule formation, fragmentation; vegetative propagation in plants.

WEB LINKS:-

<http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/A/AsexualReproduction.html>

<http://www.saburchill.com/ans02/chapters/chap049.html>

Chapter-2: Sexual Reproduction in Flowering Plants

(8 periods)

Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; out breeding devices; pollen-pistil interaction; double fertilization; post fertilization events-development of endosperm and embryo, development of seed and formation of fruit; special modes-apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation.

WEB LINKS:-

<http://scidiv.bellevuecollege.edu/rkr/biology213/labs/pdfs/ReproductionDevelopment.pdf>

<http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/A/Angiosperm.html> CHAPTER

APRIL

Chapter-3: Human Reproduction

(8 periods)

Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis -spermatogenesis and oogenesis; menstrual cycle; fertilisation, embryo development upto blastocyst formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea).

WEB LINKS:-

<http://www.biology.iupui.edu/biocourses/N100/2k4ch39repronotes.html>

http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/S/Sexual_Reproduction.html

Chapter-4: Reproductive Health

(5 periods)

Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); birth control - need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies-IVF, ZIFT, GIFT (elementary idea for general awareness).

WEB LINKS:-

http://www.cartercenter.org/resources/pdfs/health/ephti/library/lecture_notes/health_science_students/RH_HSS_final.pdf

Unit-VII GENETICS AND EVOLUTION

Chapter-5: Principles of Inheritance and Variation

(17 periods)

Heredity and variation: Mendelian inheritance; deviations from Mendelism - incomplete

dominance, co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; Sex determination - in humans, birds and honey bee; linkage and crossing over; sex linked inheritance- haemophilia, colour blindness; Mendelian disorders in humans: thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

WEB LINKS:-

<http://www.ndsu.edu/pubweb/~mcclean/plsc431/mendel/mendel1.htm>

Chapter-6: Molecular Basis of Inheritance

(15 periods)

Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central dogma; transcription, genetic code, translation; gene expression and regulation - lac operon; genome and human and rice genome projects; DNA fingerprinting.

WEB LINKS:-

<http://www.easternbiotech.com/Molecular-Basis-of-Genetics.php>

[http://highered.mcgraw-](http://highered.mcgraw-hill.com/sites/0072437316/student_view0/chapter14/animations.html)

[hill.com/sites/0072437316/student_view0/chapter14/animations.html](http://highered.mcgraw-hill.com/sites/0072437316/student_view0/chapter14/animations.html)

<http://www.csun.edu/~cmalone/pdf360/Ch10-1%20Gen%20material.pdf>

http://www.visionlearning.com/library/module_viewer.php?mid=149

<http://www.bioscience.org/atlas/genecode/genecode.htm>

MAY

Chapter-7: Evolution

(16 periods)

Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); Darwin's contribution, modern synthetic theory of evolution; mechanism of evolution - variation (mutation and recombination)

and natural selection with examples, types of natural selection; Gene flow and genetic drift; Hardy - Weinberg's principle; adaptive radiation; human evolution.

WEB LINKS:-

<http://bioweb.cs.earlham.edu/9-12/evolution/HTML/theory.html> <http://brembs.net/gould.html>
http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/H/Hardy_Weinberg.html

JULY

Unit-VIII BIOLOGY IN HUMAN WELFARE

Chapter-8: Human Health and Diseases

(10 periods)

Pathogens; parasites causing human diseases (malaria, dengue, chickengunia, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse.

WEB LINKS: -

http://nvsrochd.gov.in/S_club/Biology/Human_Health_and_Diseases.pdf
<http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001620/>
<http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0002267/>
<http://www.medicalnewstoday.com/info/cancer-oncology/>
<http://www.ext.colostate.edu/pubs/consumer/10216.html>
<http://uhaweb.hartford.edu/bugl/immune.htm>

Chapter-9: Strategies for Enhancement in Food Production

(9 periods)

Improvement in food production: Plant breeding, tissue culture, single cell protein,

Biofortification, Apiculture and Animal husbandry.

WEB LINKS:-

http://agritech.tnau.ac.in/crop_improvement/crop_imprv_breeding_methods.html

http://members.tripod.com/~Marge_S_2/nonframes/inbreeding.htm

Chapter-10: Microbes in Human Welfare (7 periods)

Household food processing, industrial production, sewage treatment, energy generation and microbes as biocontrol agents and biofertilizers. Antibiotics; production and judicious use.

WEB LINKS:-

http://www.actionbioscience.org/evolution/meade_callahan.html

<http://www.beyondbooks.com/lif72/2b.asp> http://www.euwfd.com/html/sewage_treatment.html

AUGUST

Unit-IX BIOTECHNOLOGY AND ITS APPLICATIONS

Chapter-11: Biotechnology - Principles and processes (8 periods)

Genetic Engineering (Recombinant DNA Technology).

WEB LINKS:-

<http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/R/RestrictionEnzymes.html>

http://www.bio.davidson.edu/Courses/Molbio/MolStudents/spring2003/McDonald/Gene_gun.html

<http://dwb4.unl.edu/Chem/CHEM869N/CHEM869NLinks/waksman.rutgers.edu/7Esofer/1999D>

NARevolution/Class12-2.html

http://www.eplantscience.com/index_files/biotech_tools_genetic_engineering.php

Chapter-12: Biotechnology and its Application

(8 periods)

Application of biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms - Bt crops; transgenic animals; biosafety issues, bio piracy and patents.

WEB LINKS:-

http://www.bt.ucsd.edu/bt_crop.html

<http://www.ces.ncsu.edu/depts/foodsci/ext/pubs/bioapp.html>

<http://www.nobelprize.org/educational/medicine/insulin/discovery-insulin.html>

<http://www.littletree.com.au/dna.htm><http://ghr.nlm.nih.gov/condition/adenosine-deaminase-deficiency> <http://learn.genetics.utah.edu/content/disorders/whataregd/ada/> UNIT]

Unit-X Ecology and Environment

Chapter-16: Environmental Issues

(6 periods)

Air pollution and its control; water pollution and its control; agrochemicals and their effects; solid waste management; radioactive waste management; greenhouse effect and climate change; ozone layer depletion; deforestation; any one case study as success story addressing environmental issue(s).

WEB LINKS:-

<http://arcatamarshfriends.org/> <http://www.buzzle.com/articles/air-pollution-control-equipment-systems.html> http://cpcb.nic.in/upload/NewItems/NewItem_104_airquality17cities-package-.pdf

SEPTEMBER

REVISION AND FIRST TERM EXAMINATION

OCTOBER

Unit-X Ecology and Environment

(8 periods)

Chapter-13: Organisms and Populations

Organisms and environment: Habitat and niche, population and ecological adaptations; population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution.

WEB LINKS:-

<http://kentsimmons.uwinnipeg.ca/ysesp/comeco3.htm>

Chapter-14: Ecosystem

(8 periods)

Ecosystems: Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy; nutrient cycles (carbon and phosphorous); ecological succession; ecological services - carbon fixation, pollination, seed dispersal, oxygen release (in brief).

WEB LINKS:-

<http://www.sci.sdsu.edu/classes/bio100/Lectures/Lect22/lect22.html><http://www.biog1105-1106.org/demos/106/unit10/media/5b.succession.pdf>

NOVEMBER

Chapter-15: Biodiversity and its Conservation

(8 periods)

Concept of biodiversity; patterns of biodiversity; importance of biodiversity; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, biosphere reserves, national parks, sanctuaries.

WEB LINKS:-

<http://edugreen.teri.res.in/explore/life/what.htm>

<http://www.globalissues.org/issue/169/biodiversity>

<http://www.ugc.ac.in/policy/env/Chapter4.pdf>

DECEMBER/JANUARY

REVISION AND EXAMINATION

DAVPS, SECTOR-49, GURUGRAM

PRACTICALS

Time allowed: 3 Hours

Max. Marks: 30

Evaluation Scheme

One Major Experiment	5
Marks	
One Minor Experiment	4
Marks	
Slide Preparation	5
Marks	
Spotting	7
Marks	
Practical Record + Viva Voce	4
Marks	
Project Record + Viva Voce	5
Marks	
Total Marks	30

A.	List of Experiments
1.	Study pollen germination on a slide.
2.	Collect and study soil from at least two different sites and study them for texture, moisture content, pH and water holding capacity. Correlate with the kinds of plants found in them.
3.	Collect water from two different water bodies around you and study them for pH, clarity & presence of any living organism.
4.	Study the presence of suspended particulate matter in air at two widely different sites.
5.	Study the plant population density by quadrat method.
6.	Study the plant population frequency by quadrat method.
7.	Prepare a temporary mount of onion root tip to study mitosis.
8.	Study the effect of different temperatures and three different pH on the activity of salivary amylase on starch.

9.	Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.
B.	Study/observation of the following (Spotting)
1.	Flowers adapted to pollination by different agencies (wind, insects, birds).
2.	Pollen germination on stigma through a permanent slide.
3.	Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).
4.	Meiosis in onion bud cell or grasshopper testis through permanent slides.
5.	T.S. of blastula through permanent slides (Mammalian).
6.	Mendelian inheritance using seeds of different colour/sizes of any plant.
7.	Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, earlobes, widow's peak and colour blindness.
8.	Controlled pollination - emasculation, tagging and bagging.
9.	Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, Roundworm through permanent slides or specimens. Comment on symptoms of diseases that they cause.
10.	Two plants and two animals (models/virtual images) found in xeric conditions. Comment upon their morphological adaptations.
11.	Two plants and two animals (models/virtual images) found in aquatic conditions. Comment upon their morphological adaptations.