



UPSC

2010 - MAINS PAPER - II

1. Answer any **two** of the following in about 250 words each:

20x 2 =40

- (a) Critically examine the implications of the disintegration of the Soviet Union on India's security and strategic perspectives. What further responses would you suggest in India's foreign policy to accommodate these implications.
- (b) Evaluate India's approach towards meeting the country's growing energy demands. Compare the success of this approach with that of another Asian giant which has perhaps the fastest growing energy demand.

2. Answer any four of the following in about 150 words each: 12 x 4=48

- (a) How far have Japan's principles of Hikaku San Gensoku impacted bilateral ties with India?
- (b) Assess the contributions of Indian diaspora in the Caribbean.
- (c) Do you agree with the view that Israel is a 'natural ally' of India?
- (d) Bring out the FDI and employment implications of China being a manufacturing hub and India's services hub.
- (e) Have the Uruguay Round negotiations and the resultant Trade Related Intellectual Property Rights (TRIPS) agreement helped in resolving trade conflicts arising out of variations in different nations' IPR regimes? Also list the steps taken by India to conform to TRIPS.
- (f) Examine the recent developments towards the solution of the Bangladesh-Myanmar maritime boundary dispute. What implications do these have for India?

3. Answer any eight of the following in not more than 50 words each: 5 x 8 = 40

- (a) Compare and contrast the role of the IMF with that of the World Bank.
- (b) What are the major capacity-building and reconstruction projects being undertaken by India in Afghanistan?
- (c) Bring out the significance of GDI and GEM as components of the UN's Human Development Report (HDR). Comment on India's relative rankings with regard to HDI and GDI.
- (d) What is 'Round Tripping' in the context of FDI inflows, and why has it been in the news recently in the case of India?
- (e) Comment on the reason for the recent hike in visa processing fees for certain categories of US visas. What is the likely impact of this hike on India?
- (f) In the context of the United Nations Framework Convention on Climate Change (UNFCCC), distinguish between 'Annex I' and 'Annex II' countries.
- (g) Highlight the role of the Indian peacekeeping contingent as part of MONUSCO.



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(h) List the salient features of the Riyadh declaration and the bilateral agreements between India and Saudi Arabia signed earlier this year.

(i) Comment on the reason for the recent economic crisis in the so-called 'PIGS' countries of Europe.

4. Answer any two of the following in about 150 words each: $12 \times 2 = 24$

(a) Examine the opportunities for a lasting West Asia peace solution in the context of the 'historic' talks started in September 2010.

(b) Has the February agreement between the Sudanese government and the Justice and Equality Movement (JEM) been more successful in ending the strife in Darfur than the Abuja peace agreement of 2006? Evaluate.

(c) Comment on the present status of the Biological Weapons Convention (BWC). What important issues, do you think, need to be taken up at the seventh review conference of the BWC scheduled for 2011?

5. Answer any four of the following in about 150 words each: $12 \times 4 = 48$

(a) Bring out the applications of computer models in studying climate changes, with special reference to the Community Earth System Model (CESM).

(b) What is phytoremediation? Discuss its applications.

(c) Explain and differentiate among 'Plasma', 'LCD' and 'LED' television technologies.

(d) What is 'cloud computing'? Bring out its essential features and list its advantages and limitations.

(e) Discuss the applications of nanotechnology in the health care sector.

6. Comments on any three of the following in not more than 50 words each: $5 \times 3 = 15$

(a) Rotterdam Convention

(b) The Mavi Marmara incident

(c) Significance of the Kampala declaration of the International Criminal Court (ICC)

(d) Trial chamber of the Extraordinary Chambers in the Courts of Cambodia (ECCC) and its recent verdict.

7. Comment on any six of one following in not more than 50 words each: $5 \times 6 = 30$

(a) MRSA infection

(b) HRP-2M Chromet

(c) Maglev vehicles

(d) Super absorbent polymers (SAP)



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- (e) Ginkgo biloba
- (f) CARTOSAT-2B
- (g) Various generations of mobile phone technology

8. Who/What are the following and why have they been in the news recently? (Your answer should be in a sentence or two only): 3 x 8 = 24

- (a) Craig Venter
- (b) Shahrar Amiri
- (c) Wolfram Alpha
- (d) 'Dreamliner' aircraft
- (e) Blue gene project
- (f) 'Predator' drones
- (g) 'Deepwater Horizon' incident
- (h) ACTN 3 gene

9. (a) The distribution of rent of 150 residential houses surveyed in a locality is as follows:

Rent in Rs.	Number of Houses
101-150	10
151-200	18
201-250	27
251-300	35
301-350	30
351-400	16
401-450	8
451-500	6

Find: (i) The percentage of houses having rent higher than Rs. 300.

(ii) The percentage of house having rent more than Rs. 250 but less than Rs. 401.

(b) Work out the trend values by any suitable method from the following data showing the number of murders (in thousand) in a country for the years (1985-1995). 5

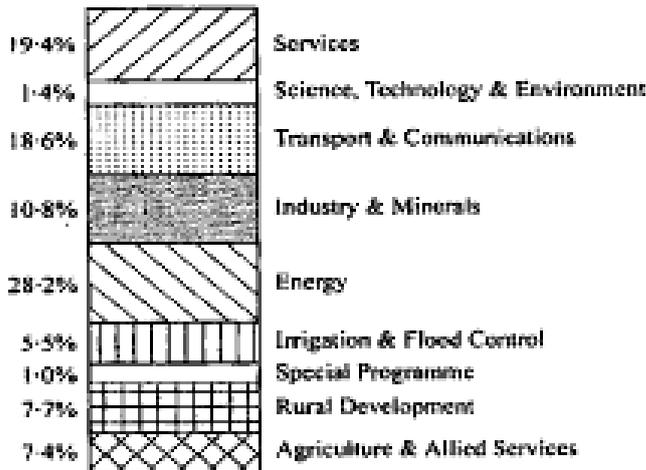
Year 1985 1986 1987 1988 1989 1990

Murders 19.0 20.6 20.1 20.7 21.5 24.7

Year 1991 1992 1993 1994 1995

Murders 24.7 23.8 24.5 23.3 21.6

(c) The data on the total investment on different heads under the eighth five year plan are shown below:



If the total proposed outlay on different heads is Rs. 4, 34,100 crores at 1991-92 prices, obtain separately the proposed outlay on each of the heads and make an overall comment.

(d) Represent the following data through suitable diagram:

Region	'A'	'B'	'C'	'D'
Married Criminals	95	80	63	32
Unmarried Criminals	72	25	41	26

10. (a) Data on flight arrivals from several cities for two airlines are shown below for the last six months. 5

Table: Citywise "ontime and delayed flights" for airlines A and B.

	Airline A		Airline B	
	Ontime	Delayed	Ontime	Delayed
City I	497	62	694	117
City II	221	12	4840	415
City III	212	20	383	65
City IV	503	102	320	129
City V	1841	305	201	61

If it is known that City II was mostly sunny and City V was mostly foggy during the six month period of data collection. Compare the performance of the two airlines A and B over the cities in terms of percentage A of delayed flights. What is your conclusion when the data on all the cities are combined?

(b). The arithmetic mean of two observations is 127.5 and their geometric mean is 60. Find (i) the two observations and (ii) their harmonic mean. 3

(c) The following table shows the number of bushels of wheat and corn produced in a farm during the years 1950-1960.

Express the yearly number of bushels of wheat and corn as percentages of total annual production. Graph the percentages by suitable bar charts and comment.

Year	No. of bushels of wheat	No. of bushels of corn
1950	200	75
1951	185	90
1952	225	100
1953	250	85
1954	240	80
1955	195	100
1956	210	110
1957	225	105
1958	250	95
1959	230	110
1960	235	100

(d) Following are the maximum daily temperature (°C) recorded in a week in a particular city: 38, 40, 36, 35, 30, 32, 34

During that week the average maximum daily temperature in another city was 92°F. Determine which city on the average, has higher maximum daily temperature during that week. 2