



UPSC

2011 - MAINS PAPER - II

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

20x 2 = 40

- List the Central Asian Republics and identify those of particular strategic and economic importance to India. Examine the opportunities and bottlenecks in enhancing relations with these countries.
- Critically examine the security and strategic implications of the so - called 'string of pearls' theory for India.
- "Compared to the South Asian Free Trade Area (SAFTA), the Bay of Bengal Initiative for Multisectoral Technical and Economic Cooperation Free Trade Area (BIMSTEC FTA) seems to be more promising". Critically evaluate.

2. Answer any three of the following in about 150 words each :

12 x 3 = 36

- Subsequent to the Nuclear Suppliers ' Group (NSG) waiver in 2008, what are the agreements on nuclear energy that India has signed with different countries?
- Trace the progress of India's efforts for a joint counter - terrorism strategy with China. What are the likely implications of the recent Xinjiang violence on these efforts?
- Bring out the importance of the Small and Medium Enterprises Expo and Conference' held in Dubai last year for Indian business.
- What are the salient features of the political and economic relationship between India and South Africa?

3. Answer **either** of the following in about 250 words :

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- "The causes and implications of the Jasmine Revolution and its spread are as much economic in nature as they are political." Critically evaluate.
- In the context of the 'Euro - zone' debt crisis, examine the proposed 'six - pack' solution. Do you think that this has a better chance of success than the earlier Stability and Growth Pact?

4. Answer any **four** of the following in about 150 words each :

12 x 4 = 48

- "As regards the increasing rates of melting of Arctic Sea ice, the interests of the Arctic Council nations may not coincide with those of the wider world." Explain
- Is there still a role for the concept of balance of power in contemporary international politics? Discuss.
- "Strategic interests seem to be replacing commercial interests for the host country with regard to Cam Ranh Bay." Amplify.
- To what extent has the withdrawal of al - Shabab from Mogadishu given peace a real chance in Somalia? Assess.



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e) On a Formula - one (F-1) racing car track, information to drivers is generally signalled through the standardized use of flags of different colours. Describe the meanings associated with any six of the flags listed below :

- i. White flag
- ii. Black flag
- iii. Yellow flag
- iv. Blue flag
- v. Black and white flag divided diagonally
- vi. Chequered flag
- vii. Yellow and red striped flag

5. Comment on any **thirteen** of the following in about 50 words each :

5 x 13 = 65

- a) Interantional Year of Chemistry
- b) The scourge of e- waste
- c) Desinger poultry eggs.
- d) INSPIRE programme of the Department of Science and Technology
- e) The 'Kessler syndrome' with reference to space debris
- f) Omega -3 fatty acids in our food
- g) Difference between 'spin - drying' and 'tumble - drying' technology with reference to drying of washed clothes.
- h) The diminishning population of vultures.
- i) 'Arsenic - bug' and the significance of its discovery
- j) F-22 'Raptor' aircraft
- k) 'concentrated' solar energy and 'photovoltaic' solar energy
- l) Analog, hybrid and IP systems in CCTV technology
- m) Various applications of Kevlar
- n) Difference between Compact Disc (CD), Digital Versatile Disc (DVD) and Blu - ray Disc



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6. Comment on the following in about 50 words each : $5 \times 5 = 25$

- Functions of the World Customs Organisation (WCO)
- Success of international intervention in Cote d'Ivoire (Ivory Coast)
- Strategies adopted by Colombia to eliminate its drug cartels
- World Food Programme (WFP) of the United Nations (UN)
- Sculpture of the broken chair in front of the UN building at Geneva

7. Why have each of the following been in the news recently ? (Each answer in a sentence or two only)

$2 \times 10 = 20$

- Tiangong - 1
- K- computer
- Gliese 581 g
- MABEL robot
- Operation Shady Rat
- 'SAGA - 220'
- 'Billion Acts of Green'
- L'Aquila earthquake
- OPERA detector at Gran Sasso
- Saturn's Titan



8. Why have the following been in the news recently ?

(Each answer in a sentence or two only)

$2 \times 5 = 10$

- 'News International' newspaper
- Mustafa Abdul - Jalil
- Abel Kirui
- Natalie Portman
- Nawaf Salam

9. (A) List the requisites of a good table.

Present the following in a suitable tabular form : 5

In 1980 out of a total of 1750 workers of a factory, 1200 were members of a union. The number of women employed was 200 of which 175 did not belong to the Union. In 1985 the number of union workers increased to 1580 of which 1290 were men. On the other hand the number of non - union workers fell down to 208 of which 180 were men. In 1990 there were 1800 employees who belonged to the union and 50 who did not belong to the union. Of all employees in 1990, 300 were women of which only 8 did not belong to the union.



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(B) Draw an on give for the following distribution. Read the median from the graph. How many students get between 60 and 72? 5

Marks	No. of students
50-55	6
55-60	10
60-65	22
65-70	30
70-75	16
75-80	12
80-100	15

(C) From the following data calculate the missing frequency : 4

No. of tablets	No. of persons cured
4-8	11
8-12	13
12-16	16
16-20	14
20-24	?
24-28	9
28-32	17
32-36	6
36-40	4

The average number of tablets to cure fever was 19.9

(D) Life - time of 400 tubes tested in a company is distributed as follows:

Life - time (Hours)	No. of tubes
300-399	14
400-499	46
500-599	58
600-699	76
700-799	68
800-899	62
900-999	48
1000-1099	22
1100-1199	6



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Determine :

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- Relative frequency of sixth class.
- Percentage of tubes whose life - time does not exceed 600 hours.
- Percentage of tubes whose life - time is greater than or equal to 900 hours.
- Percentage of tubes whose life - time is at least 500 but less than 1000 hours.

10. a) A car travels 25 km at 25 kph, 25 km at 50 kph, and 25 km at 75 kph. Find the average speed of the car for the entire journey.

- The mean of 200 items was 50. Later on it was found that two were wrongly read as 92 and 8 instead of 192 and 88. Find the correct mean
- Students were asked how long it took them to walk to school on a particular morning. A cumulative frequency distribution was formed.

Time taken (minutes)	c.f
<5	28
<10	45
<15	81
<20	143
<25	280
<30	349
<35	374
<40	395
<45	400

- Draw a cumulative frequency curve
- Estimate how many students took less than 18 minutes.
- 6% of students took x minutes or longer Find x .

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d) An investor buys ₹ 1200 worth of shares in a company each month. During the first five months he bought the shares at a price of ₹10, ₹12, ₹15, ₹20 and ₹ 24 per share. After 5 months, what is the average price paid for the shares by him ?

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