IAS Mains General Studies 2011 Paper 2

Time Allowed: Three Hour | Maximum Marks: 300

Please read the Instructions carefully before attempting questions:

Each question is printed both in Hindi and in English

Answer must be written in the medium specified in the Admission Certificate issued to you, which must be stated clearly on the cover of the answer-book in the space provided for the purpose. No marks will be given for the answer written in a medium other than that specified in the Admission Certificate.

Candidates should attempt all questions strictly in accordance with the instructions given under each question.

The number of marks carried by each question is indicated at the end of the question is indicated at the end of the question.

Q1. **Answer any two of the following in about 250 words**: 20 × 2 = 40

   (a) 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.

   (b) Critically examine the security and strategic implications of the so-called 'string of pearls' theory for India.

   (c) "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.

Q2. **Answer any three of the following in about 150 words each**: 12 × 3 = 36

   (a) Subsequent to the Nuclear Suppliers'Group (NSG) waiver in 2008, what are the agreements on nuclear energy that India has signed with different countries?

   (b) 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?

   (c) Bring out the importance of the 'Small and Medium Enterprises Expo and Conference' held in Dubai last year for Indian business.

   (d) What are the salient features of the political and economic relationship between India and South Africa?

Q3. **Answer either of the following in about 250 words**: 20

   (a) "The causes and implications of the Jasmine Revolution and its spread are as much economic in nature as they are political." Critically evaluate.

   (b) 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?

Q4. **Answer any four of the following in about 150 words each**: 12 × 4 = 48

(a) "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.

(b) Is there still a role for the concept of balance of power in contemporary international politics? Discuss.

(c) "Strategic interests seem to be replacing commercial interests for the host country with regard to Cam Ranh Bay." Amplify.

(d) To what extent has the withdrawal of al-Shabab from Mogadishu given peace a real chance in Somalia? Assess.

(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 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

Q5. Comment on any thirteen of the following in about 50 words each: 5 × 13 = 65

(a) International Year of Chemistry

(b) The scourge of e-waste

(c) 'Designer' 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-dyring' and 'tumble-drying' technology with reference to drying of washed clothes

(h) The diminishing population of vultures

(i) 'Arensic-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) Differences between Compact Disc (CD), Digital Versatile Disc (DVD) and Blu-ray Disc

Q6. Comment on the following in about 50 words each: 5 × 5 = 25

(a) Functions of the World Customs Organization (WCO).

(b) Success of international intervention in Cote d Ivoire (Ivory Coast)

(c) Strategies adopted by Colombia to eliminates its drug cartels

(d) World Food Programme (WFP) of the United Nations (UN)

(e) Sculpture of the broken chair in front of the UN building at Geneva

Q7. Why have each of the following been in the news recently (Each answer in a sentence or two only)?   2 × 10 = 20

(a) Tiangong-1

(b) K-computer

(c) c. Gliese 581g

(d) d. MABLE robot

(e) e. 'Operation Shady Rat'

(f) 'SAGA-220'

(g) 'Billion Acts of Green'

(h) L-Aquila earthquake

(i) OPERA detecter at Gran Sasso

(j) Saturn's Titan

Q8. Why have the following been in the news recently (Each answer in a sentence or two only)?   2 × 5 = 10

(a) 'News International' newspaper

(b) Mustafa Abdul-Jalil

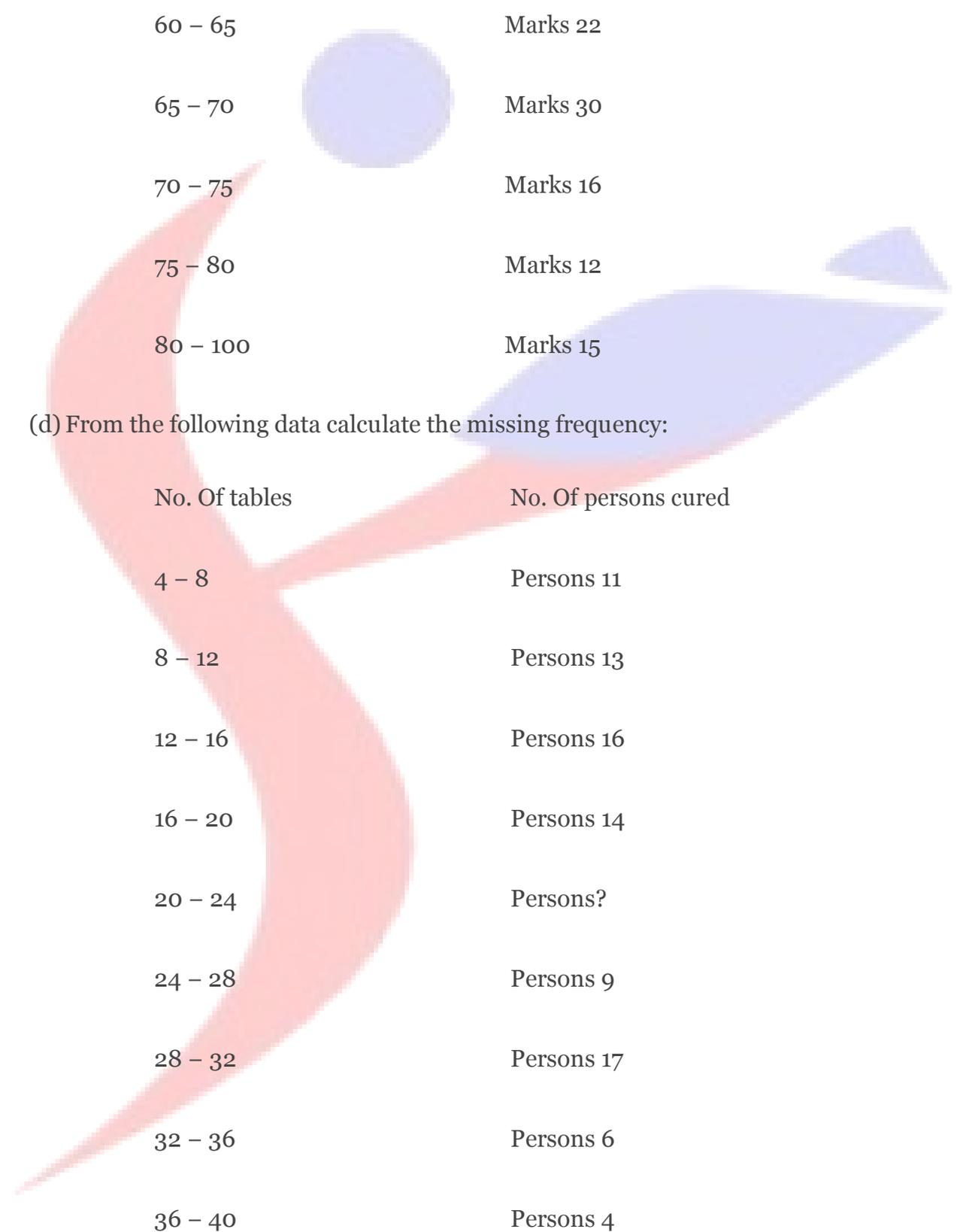(c) Abel Kirui

(d) Natalie Portman

(e) Nawaf Salam

Q9. Answer the following questions

(a) List the requisities of a good table. Present the following in a suitable tabular form: 5

(b) In-1980 out of a 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 the employees in 1990, 300 were women of which only 8 did not belong to the union.

(c) Draw an given for the following distribution, Read the median from the graph. How many students get between 60 and 72?

Marks	No. Of students
50 − 55	Marks 6
55 − 60	Marks 10

60 – 65	Marks 22
65 – 70	Marks 30
70 – 75	Marks 16
75 – 80	Marks 12
80 – 100	Marks 15

(d) From the following data calculate the missing frequency:

No. Of tables	No. Of persons cured
4 – 8	Persons 11
8 – 12	Persons 13
12 – 16	Persons 16
16 – 20	Persons 14
20 – 24	Persons?
24 – 28	Persons 9
28 – 32	Persons 17
32 – 36	Persons 6
36 – 40	Persons 4

The average number of tables to cure fever was 19.9

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

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

Determine:

   i. Relative frequency of sixth class.

      ii. Percentage of tubes whose life-time does not exceed 600 hours.

      iii. Percentage of tubes whose life-time is greater than or equal to 900 hours.

      iv. Percentage of tubes whose life-time is at least 500 but less than 1000 hours.

Q10. **Answer the following questions**

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

(b) The mean of 200 items was 50. Later on it was found that two items were wrongly read as 92 and 8 instead of 192 and 88. Find the correct mean. 4

(c) 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)	Cumulative Frequency
Time <5	Frequency 28
Time <10	Frequency 45
Time <15	Frequency 81
Time <20	Frequency 143
Time <25	Frequency 280
Time <30	Frequency 349
Time <35	Frequency 374
Time <40	Frequency 395
Time <45	Frequency 400

i. Draw a cumulative Frequency curve.

ii. Estimate how many students took less than 18 minutes.

iii. 6% of students took x minutes or longer. Find x (6 marks).

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