



# Sir Padampat Singhania School, Kota

Holiday Homework

Session: 2019-20

Class – XII

## Business Studies

### Chapter 2 Principles Of Management

#### Question 1.

Briefly explain work study techniques that help in developing standards to be followed throughout the organisation.

#### Question 2.

‘Aapka Vidyalaya’ believes in the holistic development of students and encourages team building through a mix of curricular, co-curricular and sports activities. On its Founder’s Day, a stage performance had to be put up. A committee of ten prefects was constituted to plan different aspects of the function. They all decided to use recycled paper for decoration. There was a spirit of unity and harmony and all the members supported each other. With mutual trust and a sense of belonging, the programme was systematically planned and executed. Kartik, one of the prefects, realised that the group had unknowingly applied one of the principles of management while planning and executing the programme. He was so inspired by the success of this function that he asked his father to apply the same principle in his business. His father replied that he was already using this principle.

1. Identify the principle of management applied for the success of the programme.
2. State any two features of management highlighted in the above paragraph.

#### Question 3.

Pawan is working as a Production Manager in CFL Ltd. which manufactures CFL bulbs. There is no class-conflict between the management and workers. The working conditions are very good. The company is earning huge profits. As a policy, the management shares the profits earned with the workers because they believe in the prosperity of the employees.

1. State the principle of management described in the above paragraph.

#### Question 4.

The principles of Taylor and Fayol are mutually complementary. One believed that management should share the gains with the workers while the other suggested that

employees' compensation should depend on the earning capacity of the company and should give them a reasonable standard of living.

Identify and explain the principles of Favol and Taylor referred to in the above paragraph.

### **Question 5.**

Rajveer works as a plant superintendent in a carpet making factory. In order to complete the export orders on time, the production manager asks him to make the workers work over time whereas the finance manager is strictly against this practice because it will increase the cost of production. Moreover, Rajveer feels that since the company is manufacturing handmade carpets as well as machine made carpets there is a lot of overlapping of activities. Therefore, there should be two separate divisions for both of them wherein each division should have its own in charge, plans and execution resources.

In context of the above case:

1. Identify and explain the principle of management which is being violated.
2. Also identify the principle of management that Rajveer feels should be implemented in the factory.
3. Give any two differences between the principle of management as identified in part (a) and part (b) respectively.

### **Question 6.**

Davinder is a class twelfth commerce student in a reputed school in Punjab. Satinder is his elder brother who is doing his Masters in Hospital Administration from Delhi after completing his B.Sc course. During vacations when Satinder comes home, Davinder shows him the business studies project that he is preparing on the topic 'Principles of Management'. Satinder tells him that these principles are also a part of MBA course curriculum at the beginner's level as they form the core of management in practice. But he finds these principles different from those of pure science.

In context of the above case:

1. Outline the concept of principles of management.
2. Why does Satinder find the principles of management different from those of pure science?
3. Why do the principles of management form the core of management in practice? Explain by giving any two points highlighting the importance of principles of management.

### **Question 7.**

Explain 'order' and 'initiative' as principles of general management.



# Economics

## National Income

- Q.1 Distinguish between real and nominal GDP which of these is a better indicator of economic welfare?
- Q.2 Explain how distribution of gross domestic product is a limitation in taking GDP as an index of welfare.

Or

Explain how inequalities of income is a limitation of GDP as an index of welfare.

- Q.3 Government incurs expenditure to popularity yoga among the masses. Analyse its impact on gross domestic product and welfare of the people.
- Q.4 Explain how 'Non-monetary exchanges' are a limitation in talking GDP as an index of welfare.
- Q.5 Justify the following statements:-
- (a) 'Factor income received from abroad' is added to domestic product.
  - (b) 'Factor income paid to abroad' is also added to domestic product.

### Macro Economics : Unit 4 – National Income and Related Aggregates

#### Very short answer type questions (1 mark)

- Q1. What is meant by stock variable?
- Q2. Define circular flow of income?
- Q3. Distinguish between final good and intermediate good.
- Q4. Give two examples of flow variable.
- Q5. What do you understand by leakage in circular flow of income.
- Q6. Define personal disposable income.
- Q7. Give one example of transfer payment.

#### Short Answer types questions (3-4 marks)

- Q8. Calculate intermediate consumption from the following data:

	Rs. In Lakh
(i) Value of output	200
(ii) Net value added at FC	80
(iii) Sale tax	15
(iv) Subsidy	5
(v) Depreciation	20

- Q9. Explain any two precautions required to be taken in estimating National Income by expenditure method.
- Q10. Define Gross Domestic Capital Formation. Discuss its components.

#### Long answer type questions (6 marks)

- Q11. How are the following treated while estimating national income?
- (i) Services of owner occupied houses.
  - (ii) Sale of an old car
  - (iii) Rent received by Indian residents of building rented out to the foreign embassies in India.

OR

Will the following be included in domestic factor of India? Give reasons for your answer.

- (i) Financial help given to flood victims.
  - (ii) Profits earned by an Indian bank from its branches abroad.
  - (iii) Salaries paid to non-resident Indian working in India embassy in America.
- Q12. Mention the situations in which following equations will hold true:
- (i)  $NDP_{FC} = NNP_{FC}$
  - (ii)  $GDP_{FC} < GDP_{MP}$
  - (iii)  $NNP_{FC} > NDP_{FC}$
  - (iv)  $GDP_{FC} > GDP_{MP}$
  - (v)  $GDP_{MP} = GDP_{FC}$
  - (vi) Personal income = personal disposable income.

## National Income

- Q.1 Suppose in an imaginary economy GDP at market price in a particular fiscal year was Rs. 4,000 crores, National Income was Rs. 2500 crores, Net factor income paid by the economy to rest of the world was Rs. 400 crores and the value of net indirect taxes is Rs. 450 Crores. Estimate the value of Consumption of fixed capital for the economy from the given data.
- Q.2 Distinguish between intermediate goods and final goods. Also give examples.
- Q.3 Machine Purchased is always a final good. Do you agree? Give Reason for Your answer.
- Q.4 Distinguish between stock and flow give an example of each.
- Q.5 Distinguish between factor payment and transfer payment.
- Q.6 How shall the free services provided by the owners of the production units be treated while estimating National Income.

### Macro Economics : Unit I – National Income and Related Aggregates

#### Numerical

- Q1. From the following data, calculate gross added at FC. 4
- |  | Rs. In Lakh |
|--|-------------|
| (i) Net indirect taxes                 | 20          |
| (ii) Purchase of intermediate products | 120         |
| (iii) Purchase of machines             | 300         |
| (iv) Sales                             | 250         |
| (v) Consumption of fixed capital       | 20          |
| (vi) Change in stock                   | 30          |
- Q2. Find Gross Value Added at Factor Cost. 4
- |                                     |         |
|-------------------------------------|---------|
| (i) Units of output sold            | 2000    |
| (ii) Price per unit of output (Rs.) | 20      |
| (iii) Depreciation (Rs.)            | 2000    |
| (iv) Change in stock (Rs.)          | (-) 500 |
| (v) Intermediate Costs (Rs.)        | 15000   |
| (vi) Subsidy                        | 3,000   |
- Q3. From the following data, calculate “national income” by (a) income method (b) expenditure method 6
- |  | Rs. In Crore |
|--|--------------|
| (i) Net domestic capital formation           | 340          |
| (ii) Consumption of fixed capital            | 50           |
| (iii) Net exports                            | (-) 40       |
| (iv) Net indirect taxes                      | 60           |
| (v) Net factor income to abroad              | 30           |
| (vi) Compensation of employees               | 1000         |
| (vii) Profits                                | 640          |
| (viii) Private final consumption expenditure | 1200         |
| (ix) Gov. Final consumption expenditure      | 500          |
| (x) Rent                                     | 250          |
| (xi) Interest                                | 150          |
- Q4. Find out (i) National Income and (ii) Net National Disposable Income 6
- |   |        |
|---|--------|
| (i) Private final consumption expenditure | 600    |
| (ii) Net domestic fixed capital formation | 100    |
| (iii) Net Imports                         | (-) 10 |
| (iv) Consumption of fixed capital         | 60     |
| (v) Change in Stocks                      | (-) 50 |
| (vi) Gov. Final consumption expenditure   | 200    |
| (vii) Net factor income to abroad         | 20     |
| (viii) Net current transfers to abroad    | 30     |
| (ix) Net indirect tax                     | 70     |
| (x) Factor income from abroad             | 10     |



# Geography

## Fundamentals of Human Geography

### Class XII - Textbook I (NCERT)

Map Items for identification only on outline political map of the World.

Unit-1	Ch.-1	Nil	
Unit-2	Ch. 2 to 4	1	The largest country in each continent in terms of area
Unit-3	Ch. 5 to 7	1	Areas of subsistence gathering
	Primary Activities	2	Major areas of nomadic herding of the world
		3	Major areas of commercial livestock rearing
		4	Major areas of extensive commercial grain farming
		5	Major areas of mixed farming of the World
		6	Major areas of Mediterranean agriculture of the World
	Secondary Activities	1	Ruhr region, Silicon Valley, Appalachian region, Great lakes region
Unit - 4	Ch. 8 to 9	2	Transcontinental Railways: Terminal Stations of transcontinental railways— Trans siberian, Trans Canadian, Tran Australian Railways
		3	Major Sea Ports : Europe: North Cape, London, Hamburg North America: Vancouver, San Francisco, New Orleans South America: Rio De Janeiro, Colon, Valparaiso Africa: Suez, Durban and Cape Town Asia: Yokohama, Shanghai, Hong Kong, Aden, Karachi, Kolkata Australia: Perth, Sydney, Melbourne
		4.	Inland Waterways: Suez canal, Panama canal, Rhine waterway and St. Lawrence Seaway
		5.	Major Airports: Asia: Tokyo, Beijing, Mumbai, Jedda, Aden Africa: Johannesburg & Nairobi Europe: Moscow, London, Paris, Berlin and Rome North America: Chicago, New Orleans, Mexico City South America: Buenos Aires, Santiago Australia: Drarwin and Wellington
Unit - 5	Ch. 10		Mega cities of the world – Tokyo, Delhi, Shanghai, Mumbai, Saopaulo



**India - People and Economy**  
**Class XII-Textbook II (NCERT)**

**Map Items for locating and labelling only on the outline political map of India**

Units - 6 & 7	Ch. 1 to 4	<ul style="list-style-type: none"> <li>State with highest level of urbanization and lowest level of urbanization</li> <li>One state with highest level of HDI &amp; One lowest level of HDI</li> <li>State with higher level of population density &amp; one state with lowest level of population density</li> <li>One out migrating state</li> <li>One in migrating state</li> <li>Any city with more than 10 million population – Greater Mumbai, Delhi, Kolkata, Chennai, Bengaluru</li> </ul>
Unit - 8	Ch. 5 to 9	<p>Leading producing states of the following crops:</p> <p>(a) Rice (b) Wheat (c) Jowar (d) Cotton, (e) Jute (f) Sugarcane (g) Tea and (h) Coffee</p> <p><b>Mines:</b></p> <ul style="list-style-type: none"> <li>Iron-ore mines: Mayurbhanj, Bailadila, Ratnagiri, Bellary</li> <li>Manganese mines: Balaghat, Shimoga</li> <li>Copper mines: Hazaribagh, Singhbhum, Khetari</li> <li>Bauxite mines: Katni, Bilaspur and Koraput</li> <li>Coal mines: Jharia, Bokaro, Raniganj, Neyveli</li> <li>Oil Refineries: Mathura, Jamnager, Baroni Industries</li> </ul> <p><b>Iron and Steel Plants:</b> Bhadravati, Bhilai, Bokaro, Durgapur, Rourkela and Jamshedpur</p> <p><b>Cotton Textile:</b> Surat, Varanasi, Murshidabad, Solapur and Coimbatore</p> <p><b>Software Technology Parks:</b> Gandhinagar, Shrinagar, Mohali, Noida, Indore, Hyderabad, Bengaluru and Major Industrial Regions</p>
Unit - 9	Ch. 10 - 11	<p>Transport:</p> <p>(i) Important nodes on north south corridor, east west corridor &amp; golden quadrilateral</p> <p>(ii) Major Sea Ports: Kandla, Mumbai, Marmagao, Kochi, Mangalore, Tuticorin, Chennai, Vishakhapatnam, Paradwip, Haldia</p> <p>(iii) International Air ports: Ahmedabad, Mumbai, Bengaluru, Chennai, Kolkata, Guwahati, Delhi, Amritsar, Thiruvananthapuram &amp; Hyderabad</p>
Unit-10	Ch.12	NIL

I Define the following:-

1. Migration
2. Transhumance
3. Population Explosion
4. Growth of population
5. Demographic Transition

II Answer the following:-

1. Explain the importance of age structure.
2. How is the sex ratio calculated?
3. Explain the meaning of population composition.
4. Describe the distribution of rural and urban populations in different parts of the world.
5. Analyse the factors responsible for inequality in sex-age and occupational structure in different parts of the world.

## Accountancy

Q.1 X spends twice the time than partner, Y in the firm. He claims a salary of ₹5,000 per month. Do you agree?

Q.2 What is meant by fixed capital of partners?

Q.3 Why is interest on capital allowed?

Q.4 Name the method of calculating interest on Drawings of the Partners if the different amounts are withdrawn on different dates.

Q.5 Why should partnership deed be in writing?

Q.6 What is meant by unlimited liability of a partner?

Q.7 Suresh and Ramesh are partners in a firm with capitals of ₹ 3,00,000 and ₹ 4,00,000 respectively. They do not have a partnership deed. Ramesh wants to share the profits in the ratio of capitals. State with reasons whether the claim is valid?

Q.8 Give two circumstances under which fixed Capitals of a partner may change.

Q.9 If the partners' Capital Accounts are fixed, where will you record the following items:  
(a) Salary payable to a partner (b) Fresh Capital introduced.

Q.10 List any two items that can be debited to Capital Account when capital account is fluctuating.

Q.11 Name any two items that appear on the debit side of a partner's current account.

Q.12 P and Q are partners sharing profits in the ratio of 3 : 2. P is a non-working partner. He contributed ₹5,00,000 as his capital. Q did not contribute any capital. The partnership deed provides interest on capital @ 10% p.a. and salary to Q as ₹2,500 p.m. The net profit before providing interest on capital and salary amounts to ₹40,000 for the year ended 31st March, 2009.  
Show the distribution of profit for the year.

Q.13 R and S were partners in a firm sharing profits in 3 : 2 ratio. Their respective fixed capitals were ₹10,00,000 and ₹1,50,000. The partnership deed provided the followings:

- (i) Interest on Capital @ 10% p.a.
- (ii) Interest on drawings @ 12% p.a.

During the year ended 31-3-2007, R's drawings were ₹1,000 per month drawn at the end of every month and S's drawings were ₹2,000 per month drawn at the beginning of every month. After the preparation of final accounts for the year ended 31-3-2007, it was discovered that interest on R's drawings was not taken into consideration. Calculate interest on R's drawing and give necessary adjustment entry for the same.

Q.14 Kanika and Gautam are partners doing a dry cleaning business in Lucknow, sharing profits in the ratio 2 : 1 with capitals ₹5,00,000 and ₹4,00,000 respectively. Kanika withdrew the following amounts during the year to pay the hostel expenses of her son.

	(₹)
1st April	10,000
1st June	9,000
1st November	14,000
1st December	5,000

Gautam withdrew ₹15,000 on the first day of April, July, October and January to pay rent for the accommodation of his family. He also paid ₹20,000 per month as rent for the office of partnership which was in a nearby shopping complex. Calculate interest on drawings @ 6% p.a.



## Mathematics

Q1. For what value of  $x$ , is the matrix  $A = \begin{bmatrix} 0 & 1 & -2 \\ -1 & 0 & 3 \\ x & -3 & 0 \end{bmatrix}$  a Skew-Symmetric matrix?

Q2. Prove that  $\sec^2(\tan^{-1}2) + \operatorname{cosec}^2(\cot^{-1}3) = 15$

Q3. Solve for  $x : \tan^{-1}\left(\frac{1-x}{1+x}\right) = \frac{1}{2}\tan^{-1}x, x > 0$

Q4. If  $\sin\left[\sin^{-1}\frac{1}{3} + \cos^{-1}x\right] = 1$  then find the value of  $x$ .

Q5. If  $A = \begin{bmatrix} \cos x & -\sin x \\ \sin x & \cos x \end{bmatrix}$  and  $A + A' = I$  then find the value of  $x$ .

Q6. Write the value of  $\tan^{-1}\left[2\sin\left(2\cos^{-1}\frac{\sqrt{3}}{2}\right)\right]$ .

Q7. Prove that  $\sec^2(\tan^{-1}2) + \operatorname{cosec}^2(\cot^{-1}3) = 15$

Q8. If  $A = \begin{bmatrix} 1 & 0 \\ -1 & 7 \end{bmatrix}$ , find  $k$  so that  $A^2 = 8A + KI$

Q9. Solve for  $x : \tan^{-1}\left(\frac{x-1}{x-2}\right) + \tan^{-1}\left(\frac{x+1}{x+2}\right) = \frac{\pi}{4}$

Q10. Prove that  $\tan\left\{\frac{\pi}{4} + \frac{1}{2}\cos^{-1}\frac{a}{b}\right\} + \tan\left\{\frac{\pi}{4} - \frac{1}{2}\cos^{-1}\frac{a}{b}\right\} = \frac{2b}{a}$

Q11. If  $A = \begin{bmatrix} 1 & 3 & 3 \\ 1 & 4 & 3 \\ 1 & 3 & 4 \end{bmatrix}$ , then verify that  $A(\operatorname{adj}A) = |A|I$ . Also find  $A^{-1}$ .

Q12. If  $A = \begin{bmatrix} 1 & -1 & 1 \\ 2 & 1 & -3 \\ 1 & 1 & 1 \end{bmatrix}$ . Find  $A^{-1}$  and hence solve the system of linear equations.

$$x + 2y + z = 4, -x + y + z = 0, x - 3y + z = 2$$

Q13. In a triangle ABC is



$$\begin{vmatrix} 1 & 1 & 1 \\ 1+\sin A & 1+\sin B & 1+\sin C \\ \sin A + \sin^2 A & \sin B + \sin^2 B & \sin C + \sin^2 C \end{vmatrix} = 0$$

Then prove that  $\Delta ABC$  is an isosceles triangle.

Q14. Prove that  $\tan^{-1} \left\{ \frac{\sqrt{1+x} - \sqrt{1-x}}{\sqrt{1+x} + \sqrt{1-x}} \right\} = \frac{\pi}{4} - \frac{1}{2} \cos^{-1} x, 0 < x < 1$

Q15. Using properties of determinants, prove that

$$\begin{vmatrix} (b+c)^2 & ab & ca \\ ab & (a+c)^2 & bc \\ ac & bc & (b+a)^2 \end{vmatrix} = 2abc(a+b+c)^3$$

Q16. Using elementary operations, find the inverse of the following matrix:

$$\begin{bmatrix} -1 & 1 & 2 \\ 1 & 2 & 3 \\ 3 & 1 & 1 \end{bmatrix}$$

Q17. Show that

$$\sin \left[ \cot^{-1} \left\{ \cos \left( \tan^{-1} x \right) \right\} \right] = \sqrt{\frac{x^2+1}{x^2+2}}$$

Q18. Using properties of determinants, prove the following :

$$\begin{vmatrix} \alpha & \beta & \gamma \\ \alpha^2 & \beta^2 & \gamma^2 \\ \beta+\gamma & \gamma+\alpha & \alpha+\beta \end{vmatrix} = (\alpha-\beta)(\beta-\gamma)(\gamma-\alpha)(\alpha+\beta+\gamma)$$

Q19. Prove the following :-  $\cos^{-1} \left[ \frac{\sqrt{1+\sin x} + \sqrt{1-\sin x}}{\sqrt{1+\sin x} - \sqrt{1-\sin x}} \right] = \frac{x}{2}, x \in \left(0, \frac{\pi}{4}\right)$

Q20. Express the following matrix as the sum of a symmetric and skew symmetric matrix and

verify your result.  $\begin{bmatrix} 3 & -2 & -4 \\ 3 & -2 & -5 \\ -1 & 1 & 2 \end{bmatrix}$

## English

### I. Attempt all questions.

Q1. You want to sell your house at 15 Rajendra Nagar, New Delhi. Draft an advertisement in not more than 50 words, giving the necessary details, to be published in the classified columns of 'The New India Express.' You are Krishna/Alka.

Q2. You are Anuj, a social activist. Design a poster to observe 'Wildlife Protection Week' in your city, in 50 words.

Q3. G.L. Institute recently organised a 'No Tobacco' Workshop. Write a report on the same to be published in the newspaper in 150-200 words.

Q4. Spurt of violence previously unknown in Indian schools makes it incumbent on the educationists to introduce value education effectively in schools. Write an article in 150-200 words expressing your views on the need of value education. You are Anu/Aditya.

Q5. 'Brain Drain is not a bane for a country like India.' Write a debate in 150-200 words either for or against the motion.

## Chemistry

1. A 10% solution of urea is isotonic with 20% solution of 'x' at same temperature. Calculate molecular weight of x.
2. 1.0 g of non-electrolyte solute dissolved in 50.0 g of benzene lowered the freezing point of benzene by 0.40 K. The freezing point depression constant of benzene is  $5.12 \text{ K kg mol}^{-1}$ . Find the molar mass of the solute.
3. Write the correct representation of cell:  
$$2 \text{Cr (s)} + 3 \text{Cd}^{2+} \text{(aq)} \rightarrow 2 \text{Cr}^{3+} \text{(aq)} + 3 \text{Cd (s)}$$
4. Write the overall reaction that occurs during use of nickel – cadmium cell. Is it a primary or a secondary cell.
5. How is vapour pressure of solvent affected when a non volatile solute is dissolved in it?

## Biology

1. Why is banana referred to as a parthenocarpic fruit?
2. Define the following terms :
  - (a) Sexual dimorphism
  - (b) Oviparous
  - (c) Viviparous
  - (d) Monoecious
3. Draw a labelled diagram of a mature embryo sac with 8-nucleate, 7-celled nature.
4. When is sporopollenin present in plants. What is its significance.
5. Give the function of sepal cells?



# History

## Chapter - Kings, Farmers and Towns

Very short questions.

1. Explain about the significance of the Brahmi script.
2. Who was the first to decipher Brahmi script?
3. Throw light on the limitations of the inscripational evidence.
4. Discuss the meaning of the term Janapada.
5. Throw light on Allahabad pillar inscription.

Short questions.

1. Describe what do you know about Samudragupta from the Allahabad pillar inscription composed in Sanskrit by Harishena.
2. Discuss the problems faced by the Epigraphists in getting historical evidence from the inscriptions.
3. Describe briefly the sources used to reconstruct the history of the Mauryan Empire.
4. Discuss the major factors leading to the prominence and expanse of the Magadha Empire.
5. Assess the major causes and consequences of the Kalinga conquest of Ashoka.
6. State the significance of the Mauryan Empire.
7. Describe the sources of reconstructing the histories of the Gupta rulers.
8. Explain how Kharosthi was deciphered?

Essay type questions.

1. Throw light on the main features of Mahajanapadas.
2. Describe the salient features of Mauryan administration. Which of these elements do you find in the Ashokan inscriptions?
3. Discuss the divine theory of kingship developed in post Mauryan period.

Map based question

On the outline map of India mark the given Mahajanpada and cities of the 6th century BC.  
Vajji, Magadha, Kosala, Kuru, Panchala, Gandhara, Avanti, Rajgir, Ujjain, Takshila, Varanasi

# Political Science

## End of Bipolarity

**Answer the following questions**

1. What were the factors that forced Gorbachev to initiate the reforms in the USSR?
2. What was the ideology which inspired the revolution in Russia in 1917?
3. What was the effect of disintegration of the USSR on Russia?
4. Why did the Soviet System become so weak and why did the economy stagnant?
5. What was the most immediate cause of the collapse of the Soviet Union?
6. What is the significance of Russian revolution of 1917?
7. Mention two defects of the Soviet system.
8. What was ideology which inspired revolution in Russia in 1917?
9. Why is it said that the collapse of Berlin Wall signified the collapse of the bipolar world?
10. Mention any two post cold war conflicts/war in which the US played a critical role.
11. Give the full form of NPT and CTBT.
12. For how many years did the civil war continue in Tajikistan? When did it come to an end?
13. Which two republics of the Soviet Union have had violent secessionist movement at the time of its disintegration?

14. What was the reason for the revival of the economies of most of the republics after the disintegration of the USSR?
15. Describe any four factors which forced Gorbachev to initiate the reforms in USSR.
16. Discuss the consequences of shock therapy.
17. Describe any four drawbacks of the Soviet System.
18. How did the Soviet Union become a great power after the second world war,
19. Mention any four weaknesses of the Soviet system.
20. Examine any four factors responsible for the disintegration of the Soviet Union.
21. Describe the relation between India and Russia.

OR

- “Although India has maintained good relations with all the post Communist countries get the strongest relations are still between Russia and India”. Write any three arguments to justify the statement.
22. Estimate the reforms of garbage of why did the Russian economy went downhill despite his various reforms.
  23. What led to the emergence of a bipolar world? What were the arenas of cold war between the two power blocs?
  24. Examine any six consequences of the disintegration of the Soviet Union.
  25. ‘The transition from Communism to Capitalism was not a smooth one’. Comment.

Or

How did the second most powerful country in the world become so weak that suddenly disintegrated mention any six factors.

### **Worksheet: US Hegemony**

1. Why was the ‘Operation Desert Storm’ fought against Iraq?
2. What is meant by ‘New World Order’?
3. Why the ‘First Gulf War’ was called the ‘Video game war’?
4. Mention any two new factors are immersed in Indo US relations?
5. Write the three forms of power which reflect the US hegemony.
6. Which operation was launched by the US as a part of ‘Global War on Terror’?
7. What was ‘Operation Enduring Freedom’?
8. What is meant by US Hegemony in world politics?
9. What was the motive of the US behind the Iraq invasion in 2003? Explain.
10. How far is it correct to say that 9/11 attack on the World Trade Centre was attacked on the US Hegemony? Explain.
11. How far is it correct to say that after 1990 India's foreign policy has shifted to pro US strategy? Explain.
12. What is meant by ‘Operation Iraqi Freedom’? Mention its main objective as well as the hidden objectives. Explain any two consequences of this operation.
13. Explain briefly the Hegemony of the US as a hard power.
14. What is ‘Band-wagon strategy’? How does it differ from the ‘strategy of Hide’?
15. Analyse the role of USA in global war on terrorism after the attack on WTC on 9/11.
16. Explain the types of US hegemony and give suitable examples for each.
17. Analyse the main constraints to the US hegemony in the present day world.
18. Study the cartoon on page 37 and answer.
  - a) Whom does the given cartoon represent,
  - b) What code name was given to the operation related to the Iraq invasion?



- c) Roughly how many countries agreed to join hands with the US in spite of the negative mandate by the UN?
- d) Look at the flag shown in the cartoon and name the country that let the coalition forces.
- e) What was the actual purpose of Iraq invasion?

## Physics

1. Deduce the expression for electrostatic energy stored in a capacitor of capacitance & having charge Q. How will the (i) energy stored & (ii) electric field inside the capacitor be affected when it is completely filled with a dielectric material of dielectric constant k.
2. State gauss law in electrostatics. Use this law to derive an expression for the electric field due to an infinitely long straight wire of linear charge density  $\lambda$  c/m.
3. Two charges  $2 \mu\text{C}$  &  $-2 \mu\text{C}$  are placed at points A & B 6 an apart.
  - (i) Identify an equipotential surface of the system.
  - (ii)What is the direction of electric field at every point on this surface?
4. An electric dipole is held in a uniform electric field.
  - (i) Using suitable diagram, show that it does not undergo any translator motion.
  - (ii) Derive an expression for the torque acting on it and specify its direction.
5. An infinite line charge produces a field of  $9 \times 10^4 \text{ N/C}$  at a distance of 2 cm. Calculate linear charge density.
6. A parallel plate capacitor with air between the plates has a capacitance of 8pF. What will be the capacitance if the distance between the plates is reduced by half and the space between them is filled with a substance of dielectric constant 6.
7. Equipotential surfaces are perpendicular to field lines. Why?
8. Define dielectric constant of a medium. What is its unit?
9. Name the physical quantity whose S1 unit is  $\text{JC}^{-1}$ . Is it a scalar or a vector quantity?
10. Why does the electric field inside a dielectric decrease when it is places in an external electric field?