

IIFT 2013 Question Paper

Section I

Instructions [1 - 5]

Given below are the shares of sectoral FDI inflow to India in different years (figures in percentage). Answer the questions on the basis of following data.

Sector	2007	2008	2009	2010	2011	2012
Services Sector	18.2	24.3	20.8	16.8	14.9	20.8
Construction Development	7.6	8.1	12.2	11.7	5.9	10.5
Telecommunications	5.5	8.3	9.4	7.2	6.6	0.4
Drugs and Pharmaceuticals	1.4	0.8	0.7	1	9.1	2.7
Computer Software and Hardware	12.8	5.6	2.5	4.7	2	2.8
Chemicals (other than Fertilizers)	1.3	1.9	1.7	2.1	16.6	1.5
Automobile Industry	1.9	3.4	5.1	5.9	2.5	4.9
Power	1.3	3.9	5.8	5.1	4.9	3.2
Metallurgical Industries	2.5	4.5	1.8	4.9	4.7	6.9
Hotel and Tourism	1.3	1.6	2.2	2.4	2.6	14.9

1. Among the four sectors mentioned below, the increase in share of FDI inflow between the terminal years 2007 and 2012 has been HIGHEST for

- A Services Sector
- B Construction Development
- C Automobile Industry
- D Power

Answer: C

Explanation:

Let us calculate the increase in share of FDI inflow between the terminal years 2007 and 2012 for all the options:-

- A. Services Sector = $20.8 - 18.2 = 2.6$
- B. Construction Development = $10.5 - 7.6 = 2.9$
- C. Automobile industry = $4.9 - 1.9 = 3$
- D. Power = $3.2 - 1.3 = 1.9$

Thus, the increase in share of FDI inflow between the terminal years 2007 and 2012 has been HIGHEST for the Automobile industry.

Hence, option C is the correct answer.

2. Over 2007 to 2012, the simple average share of FDI inflows has been SECOND LOWEST for

- A Chemicals (other than Fertilizers)
- B Automobile Industry
- C Metallurgical Industries

D Hotel and Tourism

Answer: B

Explanation:

The simple average share of FDI inflows will be the 2nd lowest for the industry which has the sum of the FDI inflows the 2nd lowest

Calculating the sum of the FDI inflows for all the sectors we get:-

Service sector = 115.8

Construction Development = 56

Telecommunications = 37.4

Drugs and pharmaceuticals = 15.7

Computer Hardware and Software = 30.4

Chemicals(Other than fertilizers) = 25.1

Automobile industry = 23.7

Power = 24.8

Metallurgical industries = 25.3

Hotel and Tourism = 25

Thus, the simple average share of FDI inflows has been SECOND LOWEST for the Automobile industry.

Hence, option B is the correct answer.

3. Identify the FALSE Statement from the following sentences

- A** During 2009 to 2012 the percentage share of FDI inflow in power sector has witnessed a continuous decline.
- B** During 2007 to 2009 the percentage share of FDI inflow in drug and pharmaceuticals sector has witnessed a continuous decline.
- C** During 2009 to 2011 the percentage share of FDI inflow in Hotel and Tourism sector has witnessed a continuous increase.
- D** During 2007 to 2010 the percentage share of FDI inflow in Chemicals (other than Fertilizers) sector has witnessed a continuous increase.

Answer: D

Explanation:

The percentage share of FDI inflow in Power Sector from 2009-2012 is 5.8, 5.1, 4.8 and 3.2 respectively.

Thus, during 2009 to 2012 the percentage share of FDI inflow in power sector has witnessed a continuous decline. Thus, option A is not False.

The percentage share of FDI inflow in drug and pharmaceuticals Sector from 2007-2009 is 1.4, 0.8 and 0.7 respectively.

Thus, during 2007 to 2009 the percentage share of FDI inflow in drug and pharmaceuticals sector has witnessed a continuous decline. Thus, option B is not False.

The percentage share of FDI inflow in Hotel and Tourism from 2009-2011 is 2.2, 2.4 and 2.6 respectively.

Thus, during 2009 to 2011 the percentage share of FDI inflow in Hotel and Tourism sector has witnessed a continuous increase. Thus, option C is not fall.

The percentage share of FDI inflow in Power Sector from 2009-2012 is 1.3, 1.9, 1.7, 2.1 respectively.

Thus, During 2007 to 2010 the percentage share of FDI inflow in Chemicals (other than Fertilizers) sector has not witnessed a continuous increase. Thus, option D is false.

Hence, option D is the correct answer.

4. Identify the TRUE alternative from the given options based on the following statements
- i. In 2011, the construction development sector was ranked fifth in terms of percentage share of FDI inflow in the country
 - ii. In 2009, the Computer Software and Hardware sector was ranked sixth in terms of percentage share of FDI inflow in the country
 - iii. In 2012, the drugs and pharmaceuticals sector was ranked fourth lowest from the bottom in terms of percentage share of FDI inflow in the country

- A** Statement ii only
- B** Both statement i and ii
- C** Statement iii only
- D** All three statements

Answer: B

Explanation:

The following table shows the ranks of different sectors on the basis of the FDI inflow:-

	2009	2011	2012
Service Sectors	1	2	1
Construction Development	2	5	3
Telecommunications	3	4	10
Power	4	6	6
Automobile Industry	5	9	5
Computer Software and Hardware	6	10	7
Hotel and Tourism	7	8	2
Metallurgical	8	7	4
Chemical	9	1	9
Drugs and Pharmaceuticals	10	3	8

Thus, we can see that in 2011, the construction development sector was ranked fifth in terms of percentage share of FDI inflow in the country

Also, in 2009, the Computer Software and Hardware sector was ranked sixth in terms of percentage share of FDI inflow in the country

But in 2012, the drugs and pharmaceuticals sector was ranked third lowest from the bottom in terms of percentage share of FDI inflow in the country

Hence, only i and ii are true.

Hence, option B is the correct answer.

5. Mark the HIGHEST figure among the following options

- A** Increase in FDI inflow percentage share for Telecommunications sector between 2007 and 2008
- B** Increase in FDI inflow percentage share for Computer Software and Hardware sector between 2009 and 2010
- C** Increase in FDI inflow percentage share for Automobile sector between 2011 and 2012
- D** Increase in FDI inflow percentage share for Power sector between 2007 and 2008

Answer: A

Explanation:

Increase in FDI inflow percentage share for Telecommunications sector between 2007 and 2008 = $8.3 - 5.5 = 2.8$

Increase in FDI inflow percentage share for Computer Software and Hardware sector between 2009 and 2010 = $4.7 - 2.5 = 2.2$

Increase in FDI inflow percentage share for Automobile sector between 2011 and 2012 = $4.9 - 2.5 = 2.4$

Increase in FDI inflow percentage share for Power sector between 2007 and 2008 = $3.9 - 1.3 = 2.6$

Thus, option A is the correct answer.

Instructions [6 - 10]

Given below are the shares of India's export basket to different regions (figures in percentage). Answer the questions on the basis of following data.

Region	2002 - 2003	2003 - 2004	2004 - 2005	2005 - 2006	2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010- 2011	2011- 2012
EU Countries	22.6	22.7	21.9	22.5	21.2	21.2	21.3	20.2	18.33	17.17
West Africa	2.02	1.99	1.98	1.80	1.93	2.13	1.84	1.76	1.71	2.12
East Africa	1.20	1.35	1.37	1.39	2.33	2.58	2.40	1.97	2.13	2.17
North Africa	1.28	1.21	1.62	1.55	1.47	1.63	1.84	1.75	1.59	1.54
North America	22.5	19.6	18	18.3	16.2	13.9	12.6	11.9	10.98	12.48
Latin America	2.06	1.40	2.15	2.47	2.95	3.11	2.96	3.13	3.72	4.00
ASEAN	8.76	9.12	10.1	10.1	9.98	10.1	10.3	10.2	10.21	12.00
West Asia- Gulf Cooperation Council(GCC)	9.32	11.1	11.8	11.4	13	13.4	17.2	17.1	16.90	14.85
West Asia(Other than GCC)	3.68	3.68	3.67	3.26	3.81	3.66	3.32	3.22	3.09	3.12
North East Asia	14.9	14.7	15.8	15.7	15.3	16.2	13.8	16.1	14.83	14.86
South Asia	5.28	6.73	5.51	5.38	5.12	5.9	4.62	4.69	4.64	4.37

6. Among the four options mentioned below, export share of India witnessed HIGHEST year-to-year decline in absolute terms in which of the region-period combinations?

- A In ASEAN region from 2005-06 to 2006-07
- B In South Asian region from 2004-05 to 2005-06
- C In West Asia (GCC) region from 2008-09 to 2009-10
- D In North African region from 2009-10 to 2010-11

Answer: D

Explanation:

Let us calculate the absolute difference for the given options:-

- A. $10-9.98 = 0.12$
- B. $5.51-5.38 = 0.13$
- C. $17.2-17.1=0.1$
- D. $1.75-1.59 = 0.16$

Thus, export share of India witnessed HIGHEST year-to-year decline in absolute terms in In West Asia (GCC) region from 2008-09 to 2009-10.

Hence, option C is the correct answer.

7. Among the four options mentioned below, for which region have the export shares declined maximum number of times in a year-on-year basis?

- A South Asia
- B North East Asia
- C North America
- D EU Countries

Answer: C

Explanation:

The following table shows the decrease(indicated by down arrow) in export shares for the given regions:-

South Asia	North East Asia	North America	EU countries
2002-2003 ↓	2002-2003 ↓	2002-2003 ↓	2002-2003
2003-2004 ↓	2003-2004 ↓	2003-2004 ↓	2003-2004 ↓
2004-2005 ↓	2004-2005 ↓	2004-2005 ↓	2004-2005
2005-2006 ↓	2005-2006 ↓	2005-2006 ↓	2005-2006 ↓
2006-2007 ↓	2006-2007 ↓	2006-2007 ↓	2006-2007
2007-2008 ↓	2007-2008 ↓	2007-2008 ↓	2007-2008
2008-2009 ↓	2008-2009 ↓	2008-2009 ↓	2008-2009 ↓
2009-2010 ↓	2009-2010 ↓	2009-2010 ↓	2009-2010 ↓
2010-2011 ↓	2010-2011	2010-2011 ↓	2010-2011 ↓
2011-2012	2011-2012	2011-2012	2011-2012

Thus, as we can see the export share of South Asia decreased 6 times, that of North East Asia decreased 5 times, that of North America decreased 7 times and that of EU countries decreased 5 times. Thus, among the four options mentioned, North America is the region having the export shares declined maximum number of times in a year-on-year basis. Hence, option C is the correct answer.

8. **Between 2009-10 and 2010-11, the annual growth rate in India's (percentage) export shares has been LOWEST for**

- A** North Africa
- B** North East Asia
- C** North America
- D** EU Countries

Answer: A

Explanation:

Among the four options

Growth rate of North Africa = $(1.59-1.75)/1.75=-0.09$

Growth Rate of North East Asia= $(14.83-16.1)/16.1= -0.07$

Growth rate of North America= $(10.98-11.9)/11.9=-0.07$

Growth Rate of EU = $(18.33-20.2)/20.2 = -0.05$

Growth rate of North Africa is lowest.

Hence, option A is the correct answer.

9. **Mark the HIGHEST figure from the following options**

- A** India's simple average export share to North Africa during 2008-09 and 2009-10
- B** India's simple average export share to East Africa during 2004-05 and 2007-08
- C** India's simple average export share to Latin America during 2002-03 and 2004-05
- D** India's simple average export share to West Africa during 2007-08 and 20010-11

Answer: C

Explanation:

	$1.89 + 1.75$	
India's simple average export share to North Africa during 2008-09 and 2009-10 =	2	$= 1.795$
	$1.37 + 2.58$	
India's simple average export share to East Africa during 2004-05 and 2007-08 =	2	$= 1.975$
	$2.06 + 2.15$	
India's simple average export share to Latin America during 2002-03 and 2004-05 =	2	$=$

2.105

$$2.13 + 1.71$$

India's simple average export share to West Africa during 2007-08 and 20010-11 = $\frac{2.13 + 1.71}{2} = 1.92$

Clearly, India's simple average export share to East Africa during 2004-05 and 2007-08 is the highest among the given options.

Hence, option C is the correct answer.

10. Identify the FALSE statement

- A** In 2011-12, South Asia was ranked sixth in India's export basket
- B** The export share of North Africa in India's export basket has been the lowest for maximum numbers of years
- C** In 2004-05, Latin America was ranked fourth from the bottom in India's export basket
- D** Between 2002-03 and 2003-04, the annual growth rate I India's (percentage) export share has been highest for West Asia (GCC) market.

Answer: D

Explanation:

Only Statement D is false because between 2002-03 and 2003-04, the growth rate in India's export has been the highest for South Asia and not West Asia (GCC)

Hence, option D is the correct answer.

Instructions [11 - 15]

Given below are the detailed characteristics of select India industries. Answer the question on the basis of the following data.

	Industry 1	Industry 2	Industry 3	Industry 4	Industry 5	Industry 6	Industry 7
Number of Factories	65	110	32	30	78	39	300
Number of Workers	9066	877	5656	1099	7508	3333	15670
Total Number of Person Engaged	9466	1255	6830	1330	9088	4271	19159
Wages to Workers (Rs. Lakh)	1875	420	3706	596	5800	3117	6966
Total Emoluments (Rs. Lakh)	2095	747	6479	1024	9284	6084	15053
Fuels consumed (Rs. Lakh)	88	762	10817	1384	14790	6461	32178
Material consumed (Rs. Lakh)	2519	4135	57275	34027	327400	123275	106233
Total Inputs (Rs. Lakh)	3256	5990	80238	41037	371605	138780	171246
Depreciation (Rs. Lakh)	41	149	6667	1044	25674	3515	11246
Net Value Added (Rs. Lakh)	3178	2284	23640	5831	71739	42434	72290
Profit (Rs. Lakh)	816	913	9356	3990	34943	31219	45392

11. If total managerial wage bill is defined as the difference between total emoluments and total wage to workers, and total managerial staff is defined as the difference between total person engaged and total number of workers, then average managerial wage would be HIGHEST for:

- A** Industry 5
- B** Industry 6
- C** Industry 3
- D** Industry 7

Answer: B

Explanation:

	Industry 1	Industry 2	Industry 3	Industry 4	Industry 5	Industry 6	Industry 7
Number of Factories	65	110	32	30	78	39	300
Number of Workers	9066	877	5656	1099	7508	3333	15670
Total Number of Person Engaged	9466	1255	6830	1330	9088	4271	19159
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Net Value Added (Rs. Lakh)	3178	2284	23640	5831	71739	42434	72290
Profit (Rs. Lakh)	816	913	9356	3990	34943	31219	45392

Total managerial wage bill is defined as the difference between total emoluments and total wage to workers, and total managerial staff is defined as the difference between total person engaged and total number of workers.

Then average managerial wage would be : Total managerial wage bill/total managerial staff

Average managerial wage = (total emoluments - total wage to workers)/(total person engaged - total

number of workers)

Now calculate the average managerial wage for industry 3, 5, 6, and 7.

For industry 3: $(6479 - 3706)$ lakhs / $(6830 - 5656) \Rightarrow 2773/1174$ lakhs = 2.36 lakhs

For industry 5: $(9284 - 5800)$ lakhs / $(9088 - 7508) \Rightarrow 3484/1580$ lakhs = 2.20 lakhs

For industry 6: $(6084 - 3117)$ lakhs / $(4271 - 3333) \Rightarrow 2967/938$ lakhs = 3.16 lakhs

For industry 7: $(15053 - 6966)$ lakhs / $(19159 - 15670) \Rightarrow 8087/3489$ lakhs = 2.31 lakhs

Therefore, average managerial wage for industry 6 is maximum which is option B.

12. **Profit expressed as a ratio of net value added is HIGHEST for**

A Industry 6

B Industry 7

C Industry 4

D Industry 5

Answer: A

Explanation:

Let's solve the options one by one.

Option A: For industry 6:

Profit = 31219 lakhs

Net value added = 42434 lakhs.

Required ratio = $\frac{31219}{42434} \times 100$

= 73.57 %

Option B: For industry 7:

Profit = 45392 lakhs

Net value added = 72290 lakhs.

$$\text{Required ratio} = \frac{45392}{72290} * 100$$
$$= 62.79 \%$$

Option C: For industry 4:

Profit = 3990 lakhs

Net value added = 5831 lakhs.

$$\text{Required ratio} = \frac{3990}{5831} * 100$$
$$= 68.42 \%$$

Option D: For industry 5:

Profit = 34943 lakhs

Net value added = 71739 lakhs.

$$\text{Required ratio} = \frac{34943}{71739} * 100$$
$$= 48.70 \%$$

Clearly A is the correct answer.

13. **If gross value added is defined as the sum of net value added and depreciation, then the difference in the gross value added per worker is maximum between which of the following pairs?**

- A** Industry 6 and Industry 3
- B** Industry 7 and Industry 1
- C** Industry 5 and Industry 2
- D** Industry 6 and Industry 4

Answer: C

Explanation:

	Industry 1	Industry 2	Industry 3	Industry 4	Industry 5	Industry 6	Industry 7
Number of Factories	65	110	32	30	78	39	300
Number of Workers	9066	877	5656	1099	7508	3333	15670
Total Number of Person Engaged	9466	1255	6830	1330	9088	4271	19159
Wages to Workers (Rs. Lakh)	1875	420	3706	596	5800	3117	6966
Total Emoluments (Rs. Lakh)	2095	747	6479	1024	9284	6084	15053
Fuels consumed (Rs. Lakh)	88	762	10817	1384	14790	6461	32178
Material consumed (Rs. Lakh)	2519	4135	57275	34027	327400	123275	106233
Total Inputs (Rs. Lakh)	3256	5990	80238	41037	371605	138780	171246
Depreciation (Rs. Lakh)	41	149	6667	1044	25674	3515	11246
Net Value Added (Rs. Lakh)	3178	2284	23640	5831	71739	42434	72290
Profit (Rs. Lakh)	816	913	9356	3990	34943	31219	45392

Gross value added is defined as the sum of net value added and depreciation.

Let's calculate gross value added per worker for all industries:

Industry 1: $(3178+41)/9066 = 0.35$ lakhs

Industry 2: $(2284+149)/877 = 2.77$ lakhs

Industry 3: $(23640+6667)/5656 = 5.35$ lakhs

Industry 4: $(5831+1044)/1099 = 6.25$ lakhs

Industry 5: $(71739+25674)/7508 = 12.97$ lakhs

Industry 6: $(42434+3515)/3333 = 13.78$ lakhs

Industry 7: $(72290+11246)/15670 = 5.33$ lakhs

Now checking the option one by one;

a) industry 6 -industry 3 = $13.78 - 5.35 = 8.43$ lakhs

b) industry 7 -industry 1 = $5.33 - 0.35 = 4.98$ lakhs

c) industry 5 -industry 2 = $12.97 - 2.77 = 10.2$ lakhs

d) industry 6 -industry 4 = $13.78 - 6.25 = 7.53$ lakhs

Hence the difference between industry 2 and 5 is maximum, hence option c is our answer.

14. Expense on fuel consumption as a percentage of input cost has been HIGHEST for

A Industry 3

B Industry 7

C Industry 2

D Industry 6

Answer: B

Explanation:

Let's solve the options one by one.

Option A: For industry 3:

Fuel consumed = 10817 lakhs

Total inputs cost = 80238 lakhs.

$$\begin{aligned}\text{Required ratio} &= \frac{10817}{80238} * 100 \\ &= 13.48 \%\end{aligned}$$

Option B: For industry 7:

Fuel consumed = 32178 lakhs

Total inputs cost = 171246 lakhs.

$$\begin{aligned}\text{Required ratio} &= \frac{32178}{171246} * 100 \\ &= 18.79 \%\end{aligned}$$

Option C: For industry 2:

Fuel consumed = 762 lakhs

Total inputs cost = 5990 lakhs.

$$\begin{aligned}\text{Required ratio} &= \frac{762}{5990} * 100 \\ &= 12.72 \%\end{aligned}$$

Option D: For industry 6:

Fuel consumed = 6461 lakhs

Total inputs cost = 138780 lakhs.

$$\begin{aligned}\text{Required ratio} &= \frac{6461}{138780} * 100 \\ &= 4.6 \%\end{aligned}$$

Clearly B is the correct answer.

15. Identify the TRUE statement

- A** Number of worker's per factory is third highest for industry 6
- B** Expense on Material consumption expressed as a percentage of input cost is second highest for industry 4
- C** Profit earned expressed as a percentage of emolument is second highest for Industry 7
- D** Emoluments expressed as a percentage of net value added is lowest for Industry 5

Answer: D

Explanation:

	Industry 1	Industry 2	Industry 3	Industry 4	Industry 5	Industry 6	Industry 7
Number of Factories	65	110	32	30	78	39	300
Number of Workers	9066	877	5656	1099	7508	3333	15670
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Profit (Rs. Lakh)	816	913	9356	3990	34943	31219	45392

Let's check it option by option;

a) Number of worker's per factory is third highest for industry 6

number of worker's per factory in industry 1 : $9066/65 = 139.47$

number of worker's per factory in industry 2 : $877/110 = 7.97$

number of worker's per factory in industry 3 : $5656/32 = 176.75$

number of worker's per factory in industry 4 : $1099/30 = 36.63$

number of worker's per factory in industry 5 : $7508/78 = 96.25$

number of worker's per factory in industry 6 : $3333/39 = 85.46$

number of worker's per factory in industry 7 : $15670/300 = 52.23$

we can clearly see that number of workers per factory 4th highest for industry 6 ; hence statement 1 is false.

Moving on to statement b);

Expense on Material consumption expressed as a percentage of input cost is second highest for industry 4

for industry 1: 77%

for industry 2: 69%

for industry 3: 71%

for industry 4: 83%

for industry 5: 88%

for industry 6: 88.8%

for industry 7: 62%

Hence statement b) is also false as it is third highest.

Moving on statement c);

Profit earned expressed as a percentage of emolument is second highest for Industry 7

for industry 1: 39%

for industry 2: 122%

for industry 3: 144%

for industry 4: 389%

for industry 5: 376%

for industry 6: 513%

for industry 7: 301%

clearly, Profit earned expressed as a percentage of emolument is second highest for Industry 6 which makes statement c false.

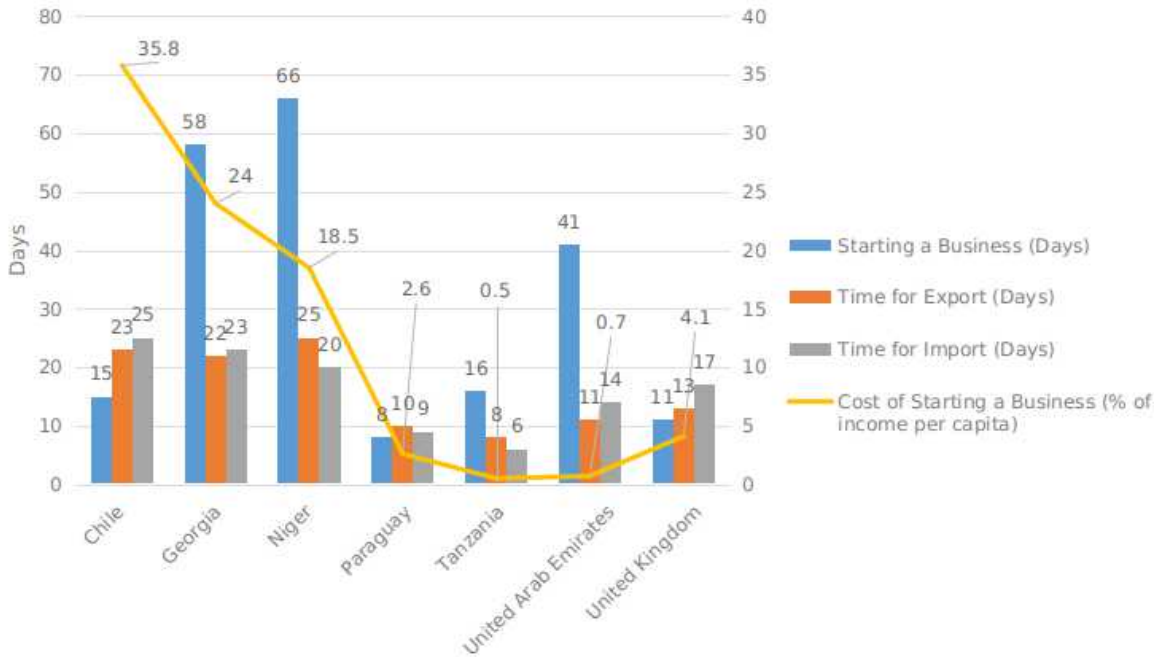
Now we have only 1 statement left which has to be true.

So our answer is D)

you can also cross-check it but it is not recommended in exam time.

Instructions [16 - 19]

Given is information relating to cost of starting a business and number of days required for specific business activities in select countries. Answer the questions on the basis of the data in the following figure. The data labels for the bars are placed above them, while the same for the line graph are placed in boxes. Legend for the bars is given in the order of left bar to the right bar.



16. If countries were ranked according to the number of days required to start a business, (with the country requiring least number of days being rank highest), which of the top three countries would have the least cost to per capita income ratio?

- A Chile
- B Tanzania
- C Paraguay
- D None of the above

Answer: C

Explanation:

The countries are ranked according to the number of days required to start a business.

The ranking of the countries is as follows.

Paraguay, United Kingdom, Chile, Tanzania, United Arab Emirates, Georgia, Nigeria.

Top three countries cost to per capita income ratio of Paraguay, United Kingdom, Chile is 2.6, 4.1, 35.8 respectively.

Among these three countries, Paraguay has the least cost to per capita income ratio.

C is the correct answer.

17. Ratio of number of days required for the export to import is the least for which country?

- A UK
- B UAE
- C Chile
- D Georgia

Answer: A

Explanation:

The ratio of total days to export to that of import for the UK = $\frac{13}{17} \approx 0.7647$

The ratio of total days to export to that of import for UAE = $\frac{11}{14} \approx 0.7857$

The ratio of total days to export to that of import for Chile = $\frac{23}{25} = 0.932$

The ratio of total days to export to that of import for Georgia = $\frac{22}{23} \approx 0.956$

Since the least ratio is for the UK,
the correct option is A.

18. Identify the TRUE statement

- A In Tanzania, the number of days required for exporting is lower than the number of days required for importing.
- B The sum of number of days required for exporting and the number of days required for importing is the third lowest for UK.
- C In Paraguay, the number of days required for starting a business id higher than the number of days required for importing.
- D In Georgia, the number of days required for exporting is lower than the number of days required for importing.

Answer: D

Explanation:

Option A:

Time for export in Tanzania = 8 days

Time for import in Tanzania = 6 days.

Since the number of days for export is greater than import, this option is incorrect.

Option B:

From the graph, it is evident that the sum of the number of days required for exporting and the number of days required for importing for the UK is less than that of Niger, Georgia, and Chile; this is not the correct

option.

Option C:

Since starting a business in Paraguay takes 2 lesser days than importing, this is not the correct option.

Option D:

As the number of days required for importing is 1 day more than that of exports, this is the correct option.

Thus, the correct option is D.

19. Identify the FALSE statement

- A** The number of days required for starting a business in Chile is lower than the corresponding figure in Tanzania.
- B** The number of days required for starting a business in UK is equal to number of days for exporting in UAE.
- C** The number of days required for importing in Georgia is higher than the number of days required for exporting in Niger
- D** The cost of starting a business as percentage of per capita income in Tanzania is lower than the corresponding figure in UAE.

Answer: C

Explanation:

Option A: Since the number of days required to start a business in Georgia is one less than that in Tanzania, this is true and hence is not the answer.

Option B: Since the number of days required for starting a business in the UK is equal to the number of days for exporting in the UAE, which is 11, this is not the correct option.

Option C: Since the number of days required for importing in Georgia is two days lesser than the number of days required for exporting in Niger, this is the correct option.

Option D: Since the statement of this option is also true, this is not the correct option.

Thus, the correct option is C.

Section I part 2

Instructions [20 - 25]

Read the following passage and solve the questions based on it.

- a. Six Indian professors from six different institutions (Jupiter, Mars, Mercury, Neptune, Pluto, Uranus) went to China to attend an international conference on "Sustainability and Innovation in Management: A Global Scenario" and they stayed in six successive rooms on the second floor of a hotel (201 - 206).
- b. Each of them has published papers in a number of journals and has donated to a number of institutions last year.
- c. The professor in room no. 202 has published in twice as many journals as the professor who donated to 8 institutions last year.

- d. The professor from Uranus and the Professor in room number 206 together published in a total of 40 journals.
- e. The professor from Jupiter published in 8 journals less than the professor from Pluto but donated to 10 more institutions last year.
- f. Four times the number of 4 journal publications by the professor in room number 204 is lesser than the number of institutions to which he donated last year.
- g. The professor in room number 203 published in 12 journals and donated to 8 institutions last year.
- h. The professor who published in 16 journals donated to 24 institutions last year.
- i. The professor in room number 205 published in 8 journals and donated to 2 institutions less than the professor from Mercury last year. The Mercury professor is staying in an odd numbered room.
- j. The Mars professor is staying two rooms ahead of Pluto professor who is staying two rooms ahead of the Mercury professor in ascending order of room numbers.
- k. The professors from Mercury and Jupiter do not stay in room number 206.

20. **In which room is the Mars professor staying?**

- A** Room number 201
- B** Room number 203
- C** Room number 205
- D** None of the above

Answer: C

Explanation:

Hence The professor from Jupiter published in 8 journals less than the professor from Pluto but donated to 10 more institutions last year.

We know Pluto donated to 8 institutes last year and has published in 12 journals. Thus, the professor from Jupiter published in 4 journals and donated to 18 institutes.

The professors from Mercury and Jupiter do not stay in room number 206.

Thus, the professor from Jupiter has to stay in either 202 or 204.

But the professor in room no. 202 has published 24 journals which is not the case with the professor from Jupiter.

Thus, the professor from Jupiter has to stay in room 204.

The professor from Uranus and the Professor in room number 206 together published in a total of 40 journals.

From this we can say that the professor from Uranus is not staying in room 206 and thus is staying in room no 202.

Thus, the professor from Neptune is staying in room no. 206.

The professor from Uranus has published papers in 24 journals and thus, the professor from Neptune has published papers in 16 journals.

The professor who published in 16 journals donated to 24 institutions last year.

Thus, the professor from Neptune has donated to 24 institutes last year.

Thus, the final table is:-

	201	202	203	204	205	206
University of Professor	Mercury	Uranus	Pluto	Jupiter	Mars	Neptune
No. of Journals		24	12	4	8	16
No. of University donated			8	18		24

Thus, the professor from Mars is staying in Room 205.

Hence, option C is the correct answer.

21. How many institutions did the Jupiter professor donate to last year?

- A 8
- B 3
- C 18
- D 24

Answer: C

Explanation:

HenThe professor from Jupiter published in 8 journals less than the professor from Pluto but donated to 10 more institutions last year.

We know Pluto donated to 8 institutes last year and has published in 12 journals. Thus, the professor from Jupiter published in 4 journals and donated to 18 institutes.

The professors from Mercury and Jupiter do not stay in room number 206.

Thus, the professor from Jupiter has to stay in either 202 or 204.

But the professor in room no. 202 has published 24 journals which is not the case with the professor from Jupiter.

Thus, the professor from Jupiter has to stay in room 204.

The professor from Uranus and the Professor in room number 206 together published in a total of 40 journals.

From this we can say that the professor from Uranus is not staying in room 206 and thus is staying in room no 202.

Thus, the professor from Neptune is staying in room no. 206.

The professor from Uranus has published papers in 24 journals and thus, the professor from Neptune has published papers in 16 journals.

The professor who published in 16 journals donated to 24 institutions last year.

Thus, the professor from Neptune has donated to 24 institutes last year.

Thus, the final table is:-

	201	202	203	204	205	206
University of Professor	Mercury	Uranus	Pluto	Jupiter	Mars	Neptune
No. of Journals		24	12	4	8	16
No. of University donated			8	18		24

Thus, the professor from the Jupiter University donated to 18 universities.
Hence, option C is the correct answer.

22. The professor of which institute is staying in room number 206?

- A Jupiter
- B Uranus
- C Mercury
- D Neptune

Answer: D

Explanation:

Let us start by making a table as shown below:-

	201	202	203	204	205	206
University of Professor						
No. of Journals						
No. of University donated						

We are given that, The professor in room number 203 published in 12 journals and donated to 8 institutions last year. Thus, put 12 and 8 in Row 3 and Row 4 of column 203.

The Mercury professor is staying in an odd numbered room. Thus, the Mercury professor is staying in either of room 201, 203 or 205.

The Mars professor is staying two rooms ahead of Pluto professor who is staying two rooms ahead of the Mercury professor in ascending order of room numbers. If the Mercury professor is staying in 203 or 205 then there will be no room for professor Mars.

Thus, the Mercury professor is staying 201, the Pluto professor is staying in 203 and the Mars professor is staying in 205.

Put these values in their respective columns.

The professor in room no. 202 has published in twice as many journals as the professor who donated to 8 institutions last year.

We know the Pluto donated to 8 institutes last year and has published in 12 journals.

Thus, the professor in room no. 202 has published 24 journals.

The table till now is:-

	201	202	203	204	205	206
University of Professor	Mercury		Pluto		Mars	
No. of Journals		24	12			
No. of University donated			8			

HenThe professor from Jupiter published in 8 journals less than the professor from Pluto but donated to 10 more institutions last year.

We know Pluto donated to 8 institutes last year and has published in 12 journals. Thus, the professor from Jupiter published in 4 journals and donated to 18 institutes.

The professors from Mercury and Jupiter do not stay in room number 206.

Thus, the professor from Jupiter has to stay in either 202 or 204.

But the professor in room no. 202 has published 24 journals which is not the case with the professor from Jupiter.

Thus, the professor from Jupiter has to stay in room 204.

The professor from Uranus and the Professor in room number 206 together published in a total of 40 journals.

From this we can say that the professor from Uranus is not staying in room 206 and thus is staying in room no 202.

Thus, the professor from Neptune is staying in room no. 206.

The professor from Uranus has published papers in 24 journals and thus, the professor from Neptune has published papers in 16 journals.

The professor who published in 16 journals donated to 24 institutions last year.

Thus, the professor from Neptune has donated to 24 institutes last year.

Thus, the final table is:-

	201	202	203	204	205	206
University of Professor	Mercury	Uranus	Pluto	Jupiter	Mars	Neptune
No. of Journals		24	12	4	8	16
No. of University donated			8	18		24

Thus, the professor from Neptune is staying in room no 206.

Hence, option D is the correct answer.

23. The professor of which institute donated to 24 institutions last year?

A Jupiter

- B** Uranus
- C** Mercury
- D** Neptune

Answer: D

Explanation:

Let us start by making a table as shown below:-

	201	202	203	204	205	206
University of Professor						
No. of Journals						
No. of University donated						

We are given that, The professor in room number 203 published in 12 journals and donated to 8 institutions last year. Thus, put 12 and 8 in Row 3 and Row 4 of column 203.

The Mercury professor is staying in an odd numbered room. Thus, the Mercury professor is staying in either of room 201, 203 or 205.

The Mars professor is staying two rooms ahead of Pluto professor who is staying two rooms ahead of the Mercury professor in ascending order of room numbers. If the Mercury professor is staying in 203 or 205 then there will be no room for professor Mars.

Thus, the Mercury professor is staying 201, the Pluto professor is staying in 203 and the Mars professor is staying in 205.

Put these values in their respective columns.

The professor in room no. 202 has published in twice as many journals as the professor who donated to 8 institutions last year.

We know the Pluto donated to 8 institutes last year and has published in 12 journals.

Thus, the professor in room no. 202 has published 24 journals.

The table till now is:-

	201	202	203	204	205	206
University of Professor	Mercury		Pluto		Mars	
No. of Journals		24	12			
No. of University donated			8			

The professor from Jupiter published in 8 journals less than the professor from Pluto but donated to 10 more institutions last year.

We know Pluto donated to 8 institutes last year and has published in 12 journals. Thus, the professor from Jupiter published in 4 journals and donated to 18 institutes.

The professors from Mercury and Jupiter do not stay in room number 206.

Thus, the professor from Jupiter has to stay in either 202 or 204.

But the professor in room no. 202 has published 24 journals which is not the case with the professor from Jupiter.

Thus, the professor from Jupiter has to stay in room 204.

The professor from Uranus and the Professor in room number 206 together published in a total of 40 journals.

From this we can say that the professor from Uranus is not staying in room 206 and thus is staying in room no 202.

Thus, the professor from Neptune is staying in room no. 206.

The professor from Uranus has published papers in 24 journals and thus, the professor from Neptune has published papers in 16 journals.

The professor who published in 16 journals donated to 24 institutions last year.

Thus, the professor from Neptune has donated to 24 institutes last year.

Thus, the final table is:-

	201	202	203	204	205	206
University of Professor	Mercury	Uranus	Pluto	Jupiter	Mars	Neptune
No. of Journals		24	12	4	8	16
No. of University donated			8	18		24

Thus, the professor from Neptune donated to 24 universities.

Hence, option D is the correct answer.

24. The professor of which institute published in the maximum number of journals?

A Jupiter

B Uranus

C Neptune

D Mars

Answer: B

Explanation:

The professor from Jupiter published in 8 journals less than the

professor from Pluto but donated to 10 more institutions last year.

We know Pluto donated to 8 institutes last year and has published in 12 journals. Thus, the professor from Jupiter published in 4 journals and donated to 18 institutes.

The professors from Mercury and Jupiter do not stay in room number 206.

Thus, the professor from Jupiter has to stay in either 202 or 204.

But the professor in room no. 202 has published 24 journals which is not the case with the professor from Jupiter.

Thus, the professor from Jupiter has to stay in room 204.

The professor from Uranus and the Professor in room number 206 together published in a total of 40 journals.

From this we can say that the professor from Uranus is not staying in room 206 and thus is staying in room no 202.

Thus, the professor from Neptune is staying in room no. 206.

The professor from Uranus has published papers in 24 journals and thus, the professor from Neptune has published papers in 16 journals.

The professor who published in 16 journals donated to 24 institutions last year.

Thus, the professor from Neptune has donated to 24 institutes last year.

Thus, the final table is:-

	201	202	203	204	205	206
University of Professor	Mercury	Uranus	Pluto	Jupiter	Mars	Neptune
No. of Journals		24	12	4	8	16
No. of University donated			8	18		24

Thus, among the given options the professor from Uranus published papers in the maximum number of journals.

(The actual answer to this question is cannot be determined as we do not know how many papers were published by the professor from Mercury)

Hence, option B is the correct answer.

25. In how many journals did the Jupiter professor publish?

- A 8
- B 4
- C 12
- D 20

Answer: B

Explanation:

Let us start by making a table as shown below:-

	201	202	203	204	205	206
University of Professor						
No. of Journals						
No. of University donated						

We are given that, The professor in room number 203 published in 12 journals and donated to 8 institutions last year. Thus, put 12 and 8 in Row 3 and Row 4 of column 203.

The Mercury professor is staying in an odd numbered room. Thus, the Mercury professor is staying in either of room 201, 203 or 205.

The Mars professor is staying two rooms ahead of Pluto professor who is staying two rooms ahead of the Mercury professor in ascending order of room numbers. If the Mercury professor is staying in 203 or 205 then there will be no room for professor Mars.

Thus, the Mercury professor is staying 201, the Pluto professor is staying in 203 and the Mars professor is staying in 205.

Put these values in their respective columns.

The professor in room no. 202 has published in twice as many journals as the professor who donated to 8 institutions last year.

We know the Pluto donated to 8 institutes last year and has published in 12 journals.

Thus, the professor in room no. 202 has published 24 journals.

The table till now is:-

	201	202	203	204	205	206
University of Professor	Mercury		Pluto		Mars	
No. of Journals		24	12			
No. of University donated			8			

Thus, The professor from Jupiter published in 8 journals less than the professor from Pluto but donated to 10 more institutions last year.

We know Pluto donated to 8 institutes last year and has published in 12 journals. Thus, the professor from Jupiter published in 4 journals and donated to 18 institutes.

The professors from Mercury and Jupiter do not stay in room number 206.

Thus, the professor from Jupiter has to stay in either 202 or 204.

But the professor in room no. 202 has published 24 journals which is not the case with the professor from Jupiter.

Thus, the professor from Jupiter has to stay in room 204.

The professor from Uranus and the Professor in room number 206 together published in a total of 40 journals.

From this we can say that the professor from Uranus is not staying in room 206 and thus is staying in room no 202.

Thus, the professor from Neptune is staying in room no. 206.

The professor from Uranus has published papers in 24 journals and thus, the professor from Neptune has published papers in 16 journals.

The professor who published in 16 journals donated to 24 institutions last year.

Thus, the professor from Neptune has donated to 24 institutes last year.

Thus, the final table is:-

	201	202	203	204	205	206
University of Professor	Mercury	Uranus	Pluto	Jupiter	Mars	Neptune
No. of Journals		24	12	4	8	16
No. of University donated			8	18		24

Thus, among the given options the professor from Uranus published papers in the maximum number of journals.

(The actual answer to this question is cannot be determined as we do not know how many papers were published by the professor from Mercury)

Thus, the professor from the Jupiter University published the papers in 4 Journals.

Hence, option B is the correct answer.

Instructions [26 - 27]

LETTER E R C F L N H K P T A S G
CODE % 3 2 5 @ 7 # 6 1 8 4 % 9

- If the first letter is a vowel and last letter is a consonant, both are to be coded as ©
- If the first letter is a consonant and last letter is a vowel, both are to be coded as 0
- If the first letter as well as the last letter are vowels, both are to be coded as the code of the last letter.

26. **N F R S C A**

A 753%20

B 053%24

C 0232%0

D 053%20

Answer: D

Explanation:

The given sequence is NFRSCA

We are given that If the first letter is a consonant and last letter is a vowel, both are to be coded as 0

In the given sequence N is a consonant and A is a vowel.

Thus, both N and A is to be coded 0. Code word fro F, R, S, C is 5, 3, % and 2 respectively

Thus, the required code word = 053%20

Hence, option D is the correct answer.

27. **A R F T H E**

A %358#%

B 4358#%

C 4358#4

D %385#%

Answer: A

Explanation:

The given sequence is A R F T H E

We are given that:- If the first letter as well as the last letter are vowels, both are to be coded as the code of the last letter.

In the given sequence both A and E are vowels and thus, both are to be coded the code word of E(%)

The code word for R, F, T and H are 3, 5, 8 and # respectively.

Hence, the code word for the given sequence is %358#%

Hence, option A is the correct answer.

28. **Read the following information to answer the question that follows.**

P - Q means Q is father of P

P * Q means Q is brother of P

P ÷ Q means Q is wife of P

P + Q means Q is sister of P

Which of the following means M is the grandfather of T?

A T - C ÷ L + N * M

B T - R ÷ Z + L * M

C T ÷ Z * L + F - M

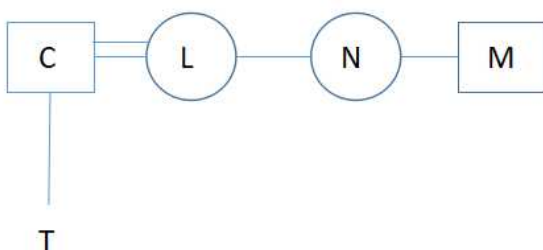
D None of these

Answer: D

Explanation:

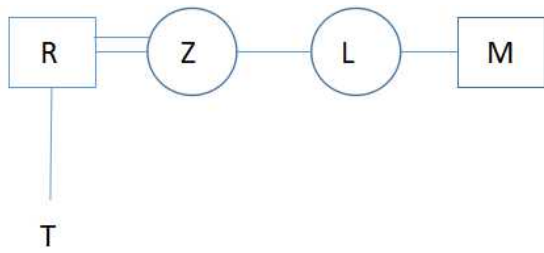
Let us draw the family tree for each option:-

A.



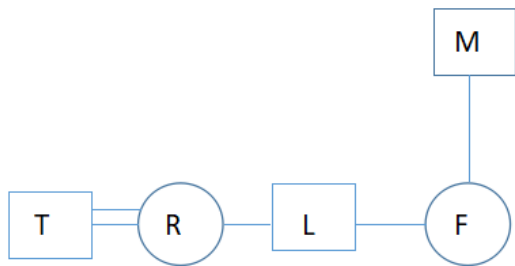
Thus, M is the uncle of T and thus, option A is not the right answer

B.



Thus, M is the uncle of T and thus, option B is the not the right answer.

C



Thus, there is no direct relation between T and M and thus, option C is not the correct answer.

Hence, none of these is the correct answer.

Hence, option D is the correct answer.

29. **There are five houses P, Q, R, S, and T. P is right of Q and T is left of R and right of P. Q is right of S. Which is in the middle?**

A P

B Q

C T

D R

Answer: A

Explanation:

P is right of Q and T is left of R and right of P. Q is right of S

Thus, Q is to right of S, P is to the right of Q, T is to the right of P and R is to the right of T.

Thus, the arrangement is SQPTR.

Thus, P is in the middle.

Hence, option A is the correct answer.

30. Find the statement which is necessarily true according to the given information:

The Asatra Vriksh is an evergreen tree that grows in the Nilgiris. The Asatra Vriksh has a fleshy, poisonous fruit. Recently, Purol, a substance found in the bark of the Asatra Vriksh, was discovered to be a promising new antidepressant drug.

- A Purol is poisonous when taken by healthy people.
- B Purol has cured people from various diseases.
- C People should not eat the fruit of Asatra Vriksh.
- D No treatment for depression was known till Purol was discovered.

Answer: C

Explanation:

It is given that Asatra Vriksh has a poisonous fruit. From this we can conclude that people should not eat the fruit of Asatra Vriksh.

There is no such information in the passage from which options A, B and D can be inferred.

Hence, option C is the correct answer.

31. Given below are some words from an artificial language.

agnoscrenia means poisonous spider

delanocrenia means poisonous snake

agnosdeery means brown spider

Which of the following is most likely to mean "black widow spider"?

- A aeeryclostangus
- B agnosvitriblunin
- C agnosdelano
- D trymuttiangus

Answer: B

Explanation:

(1) agnoscrenia means poisonous spider

(2) delanocrenia means poisonous snake

(3) agnosdeery means brown spider

From statement (1) and (2) we can say that crenia here refers to 'poisonous'.

From statement (1) and (3) we can say that agnos here refers to 'spider'.

From statement (1) and (2) we can say that delano here refers to snake.

"black widow spider" will definitely consist code agnos. Hence, only option B or C can be correct answer.

'delano' can't be code for "black widow" because delano refers to snake. Hence, option B is the correct answer.

32. A research study recorded that the number of unemployed educated youth was equal to the number of unemployed uneducated youth. It was concluded by the researchers that being educated does not enhance the probability of being employed. Which of the following information would be required to validate the above conclusion?
- A The number unemployed educated and uneducated people in other age groups.
 - B The number of organisations employing youth.
 - C The percentage of unemployment in educated youth versus percentage of unemployment in uneducated youth.
 - D The percentage increase in number of educated youth versus last year.

Answer: C

Explanation:

Consider the case,

Out of 1000 educated youth 10 are unemployed and out of 20 uneducated youth 10 are unemployed.

Thus, the number of unemployed educated youth was equal to the number of unemployed uneducated youth.

But as we see that the probability that an educated you will be unemployed is 1% and the probability that an uneducated youth is unemployed is 50%.

Thus, to validate the given conclusion we need the percentage of unemployment in educated youth versus percentage of unemployment in uneducated youth.

Hence, option C is the correct answer.

Instructions [33 - 35]

Study the information below and answer the questions based on it:

- i. There are 5 persons in a group – P, Q, R, S and T.
- ii. In this group, there is one badminton player, one chess player and one tennis player.
- iii. P and S are unmarried ladies who do not play any games.
- iv. No lady is either a chess player or a badminton player.
- v. There is one married couple in this group of which T is the husband.
- vi. Q is the brother of R and is neither a chess player nor a tennis player.

33. Which of the following groups has only ladies?

- A PQR
- B QRS
- C RST
- D None of the above

Answer: D

Explanation:

Thus, none of the given group has only girls.

Hence, option D is the correct answer.

34. Who is the tennis player?

A Q

B R

C S

D T

Answer: B

Explanation:

Thus, R is the tennis player.

Hence, option B is the correct answer.

35. Who is the wife of T?

A P

B S

C Q

D R

Answer: D

Explanation:

Thus, R is the wife of T.

Hence, option D is the correct answer.

36. The time in a clock is 20 minutes past 2. Find the angle between the hands of the clock.

A 45 degrees

B 50 degrees

C 60 degrees

D 120 degrees

Answer: B

Explanation:

Hour hand will cover 360 degrees in 12 hours. Thus, 1 hour = 30 degrees.

In 2 hour 20 minutes i.e. in 2.33 hours it will cover $2.33 \times 30 = 70$ degrees.

Minute hand will cover 360 degrees in 1 hours. Thus, in 20 minutes it will cover 120 degrees.

Thus, the angle between the hour hand and the minute hand at 2 hour twenty minutes = $120 - 70 = 50$ degrees.

Hence, option B is the correct answer.

Instructions [37 - 39]

Select the correct option to fill in the blank space/s

37. c_bba_cab_ac_ab_ac

A b, c, b, a,
c

B c, a, b, c,
b

C a, c, c, b,
c

D a, c, b, c,
b

Answer: D

Explanation:

As we can see the given patten in cab then bac then cab again and so on

Thus, a, c, b, c, b will fill the blanks.

Hence, option D is the correct answer.

38. B2CD, _____, BCD4, _____, BC6D

A BC3D; B5CD

B BC2D; BC3D

C BC3D; B3CD

D BC3D; BC5D

Answer: A

Explanation:

In the given series, the alphabets are same and only the number is changing. By observation, we see that the number is increased by 1 in each subsequent term. Also, the position of number changes by 1 in each subsequent term and this change is cyclic. In the first term, the number 2 is at the second position. So, in the third term, the number should be at the third position and it must be increased by 1. Thus, the third term must be BC3D.

In the fourth term, the number is 4 and is at the last. So, in the fifth term, it should be at the second position (as the change in position is cyclic) and must be increased by 1. Thus, the fourth term will be B5CD.

Hence, option A is the correct answer.

39. P3, M8, _____, G24, D35

- A** K15
- B** J13
- C** I13
- D** J15

Answer: D

Explanation:

P = 16, P3 = 16 3
M = 13, M8 = 13 8

G = 7, G24 = 7 24
D = 4, D35 = 5 35

1st series =16,13,__,7,5.....

Pattern -3 on subsequent terms

2nd series 3,8,__,24,34

Thus, M-3rd term letter = 3. Thus, the letter should be J.
J = 10

Pattern +5+....+.....+11

thus we can infer+5+7+9+11

Thus, the 3rd term should be 15

Hence, option D is the correct answer.

Section II

40. In Column 1 are the names of some great Indians,whose birthdays are celebrated as special days, which are given in Column 2.Match the birthday with the day of celebration

	Column 1 :Birthday of		Column 2 : Celebrated in India as
i	SwamiVivekananda	a.	Harmony Day
ii	M.Visvesvaraya	b.	Doctors Day
iii	Rajiv Gandhi	c.	National YouthDay
iv	B.C.Roy	d.	Engineers Day

- A** i-a; ii-b; iii-c; iv-d
- B** i-c; ii-b; iii-d; iv-a
- C** i-c; ii-d; iii-a; iv-b
- D** i-d; ii-c; iii-b; iv-a

Answer: C

Explanation:

Engineer's day is observed on 15th September that's the birthday of M. Visvesvaraya.

Sadbhavana Diwas is celebrated on the 20th of August every year to commemorate the birth anniversary of the erstwhile Prime Minister of India, Shri Rajiv Gandhi. Sadbhavana in English means Goodwill and Harmony. Thus when translated, the day is Harmony Day for India.

Doctor's Day in India was established by the Government of India in 1991 to be recognized and celebrated every year on **1st of July** as National Doctors day. It is celebrated on **1st of July** on the birth and death anniversary of the most famous physician of India Dr. Bidhan Chandra Roy (Dr. B C Roy).

National Youth Day is celebrated in **India** on 12 January on the birthday of Swami Vivekananda. Hence, option C is the correct answer.

41. Which of the following fictional characters was created by Agatha Christie?

- A** Hercule Poirot
- B** Father Brown
- C** Perry Mason
- D** Sherlock Holmes

Answer: A

Explanation:

Hercule Poirot is a fictional Belgian detective, created by Agatha Christie. Poirot is one of Christie's most famous and long-lived characters, appearing in 33 novels, one play (Black Coffee), and more than 50 short stories published between 1920 and 1975.

42. Under an agreement with which of the following countries did Subhash Chandra Bose organise the Indian soldiers into Azad Hind Fauj?

- A** Germany
- B** Japan
- C** Italy
- D** Russia

Answer: B

Explanation:

The Provisional Government of Free India, or, more simply, Free India (Azad Hind), was an Indian provisional government established in occupied Singapore in 1943 and supported by the Empire of Japan, Nazi Germany, Italian Social Republic, and their allies.

It was a part of a political movement originating in the 1940s outside India with the purpose of allying with the Axis powers to free India from British Rule. It was established by Indian nationalists-in-exile during the latter part of the Second World War in Singapore with monetary, military and political assistance from

Imperial Japan. Founded on 21 October 1943, the government was inspired by the concepts of Subhas Chandra Bose who was also the leader of the government and the Head of State of this Provisional Indian Government-in-exile. The government proclaimed authority over Indian civilian and military personnel in Southeast Asian British colonial territory and prospective authority over Indian territory to fall to the Japanese forces and the Indian National Army during the Japanese thrust towards India during the Second World War. The government of Azad Hind had its own currency, court and civil code, and in the eyes of some Indians its existence gave a greater legitimacy to the independence struggle against the British.

However, while it possessed all the nominal requisites of a legitimate government, it lacked large and definite areas of sovereign territory until Japan gave it nominal authority of the Andaman and Nicobar Islands in 1943 and the occupation of parts of Manipur and Nagaland. Japanese officials made all the decisions, and throughout its existence it was entirely dependent on Japanese support.

Immediately after the formation of the government-in-exile, Azad Hind declared war against the Anglo-American allied forces on the Indo-Burma Front. Its army, the "Azad Hind Fauj" (Indian National Army or the INA), went into action against the British Indian Army and the allied forces as part of the Imperial Japanese Army in the Imphal-Kohima sector. The INA had its first major engagement at the Battle of Imphal where, under the command of the Japanese Fifteenth Army, it breached the British defences in Kohima, reaching the salient of Moirang before suffering a catastrophic defeat as the Allied forces held, and Allied air dominance and compromised supply lines forced both the Japanese and the INA to retreat.

43. **Bashar al-Assad is/was a leader of which of the following countries?**

- A** Oman
- B** Jordan
- C** Tunisia
- D** Syria

Answer: D

Explanation:

Bashar Hafez al-Assad is a Syrian politician who has been the 19th and current President of Syria since 17 July 2000. He is also commander-in-chief of the Syrian Armed Forces and Regional Secretary of the Arab Socialist Ba'ath Party's branch in Syria.

44. **From the year 2014 onwards, the London Interbank Offered Rate (LIBOR) will be administered by**

- A** NYSE Euronext
- B** Thomson Reuters
- C** British Banker's Association
- D** UK's Financial Services Authority

Answer: A

Explanation:

From the year 2014 onwards, the London Interbank Offered Rate (LIBOR) is being administered by NYSE Euronext.

45. Which of the following countries is not a member of SAARC?

- A Nepal
- B Myanmar
- C Pakistan
- D Afghanistan

Answer: B

Explanation:

The South Asian Association for Regional Cooperation (SAARC) is the regional intergovernmental organization and geopolitical union of nations in South Asia. Its member states include Afghanistan, Bangladesh, Bhutan, India, Nepal, the Maldives, Pakistan and Sri Lanka.

46. Given in Column 1 are some Latin phrases commonly used in English. Their meanings are given in Column 2. Match the phrase in Column 1 with its correct meaning in Column 2

	Column 1		Column 2
i	Caveat Emptor	a	That is to say
ii	Quid Pro Quo	b	In the same place
iii	Videlicet	c	Let the buyer beware
iv	Ibidem	d	One thing for another

- A i-c; ii-d; iii-a; iv-b
- B i-b; ii-a; iii-c; iv-d
- C i-d; ii-c; iii-b; iv-a
- D i-a; ii-b; iii-d; iv-c

Answer: A

Explanation:

Caveat Emptor is the principle that the buyer alone is responsible for checking the quality and suitability of goods before a purchase is made.

Quid pro quo means a favour or advantage granted in return for something.

Videlicet is more formal term for viz. viz means namely; in other words (used to introduce a gloss or explanation).

Ibidem means in the same place.

47. What is the name of the novel that was published in April 2013 and authored under the pseudonym Robert Galbraith?

- A** Ghana Must Go
- B** Savage Continent
- C** The Cuckoo's Calling
- D** Who says Elephants Can't Dance?

Answer: C

Explanation:

The Cuckoo's Calling is a 2013 crime fiction novel by J. K. Rowling, published under the pseudonym Robert Galbraith. It is the first novel in the Cormoran Strike series of detective novels and was followed by The Silkworm in 2014, Career of Evil in 2015, and Lethal White in 2018.

48. **Which of the following persons purchased the Washington Post in 2013?**

- A** Warren Buffet
- B** Jeff Bezos
- C** Carlos Slim
- D** Steven Spielberg

Answer: B

Explanation:

In October 2013, the paper's longtime controlling family, the Graham family, sold the newspaper to Nash Holdings, a holding company established by Jeff Bezos, for \$250 million in cash. Therefore, option B is the correct answer.

49. **For which franchise did Parupalli Kashyap play in IBL 2013?**

- A** Pune Pistons
- B** Banga Beats
- C** Mumbai Masters
- D** Hyderabad Hotshots

Answer: B

Explanation:

Banga Beats: Owned by the BOP Group, the Bangalore franchise was led by India's ace shuttler Parupalli Kashyap who was bought for \$75,000.

50. **Who amongst the following is not associated with Egypt?**

- A** Mohammed al-Magariaf
- B** Adly Mansour
- C** Mohammed Morsi
- D** Hosni Mubarak

Answer: A

Explanation:

Mohammed el-Magariaf is a Libyan politician who served as the President of the General National Congress from its first meeting in August 2012 until his resignation in May 2013. In this role he was effectively Libya's de facto head of state, until his resignation in May 2013.

Adly Mansour is an Egyptian judge and politician who served as President (or Chief Justice) of the Supreme Constitutional Court of Egypt. He also served as the acting President of Egypt from 4 July 2013 to 8 June 2014 following the 2013 Egyptian coup d'état by the military which deposed President Mohamed Morsi.

Mohamed Morsi is an Egyptian politician who served as the fifth President of Egypt, from 30 June 2012 to 3 July 2013, when General Abdel Fattah el-Sisi removed Morsi from office in the 2013 Egyptian coup d'état after the June 2013 Egyptian protests.

Muhammad Hosni Mubarak is a former Egyptian military and political leader who served as the fourth President of Egypt from 1981 to 2011. Before he entered politics, Mubarak was a career officer in the Egyptian Air Force.

Therefore, option A is the correct answer.

51. **Which of the following is Narayan Murthy not associated with?**

- A** Padma Vibhushan
- B** Patni Computers
- C** Unique Identification Authority of India
- D** Both A and B

Answer: C

Explanation:

Narayan Murthy has received Padma Vibhushan.

Before starting Infosys, Narayan Murthy worked with Patni Computer Systems in Pune (Maharashtra).

Narayana Murthy wasn't appointed as Unique Identification Authority of India's chairman. Nandan Nilekani, another co-founder of Infosys was invited by Hon'ble Prime Minister, Dr. Manmohan Singh to take charge as the Chairperson of the Unique Identification Authority of India (UIDAI), in the rank of Cabinet Minister.

Hence, option C is the correct answer.

52. **Pick the odd one out**

- A** Ban Ki-Moon

- B** Boutros Boutros-Ghali
- C** Pascal Lamy
- D** Kofi Annan

Answer: C

Explanation:

Ban Ki-Moon, Boutros Boutros-Ghali and Kofi Annan are UN secretary whereas Pascal Lamy. Hence, Pascal Lamy is the odd man out. Hence, option C is the correct answer.

53. **Pick the odd one out**

- A** Abhinav Bindra
- B** Sushil Kumar
- C** Gagan Narang
- D** Vijay Kumar

Answer: B

Explanation:

Abhinav Bindra, Gagan Narang and Vijay Kumar won Olympics medal in Shooting whereas Sushil Kumar won the Olympics medal in Wrestling. Thus, Sushil Kumar is the odd man out. Hence, option B is the correct answer.

54. **Dr. Raghuram Rajan has not served in which of the following positions**

- A** Governor, RBI
- B** Economic Counsellor, IMF
- C** Chief Economist, World Bank
- D** Chief Economic Advisor, GOI

Answer: C

Explanation:

Chief Economic Advisor, GOI - 15th Chief Economic Adviser to the Government of India (10 August 2012 - 4 September 2013)
Governor, RBI - 23rd Governor of the Reserve Bank of India (4 September 2013 - 4 September 2016)
At IMF, Dr. Raghuram Rajan has served as Economic Counsellor and Chief Economist. He didn't serve World Bank so far.

55. In the Tapi gas pipeline, the word "Tapi" refers to which of the following?

- A** Turkey, Afghanistan, Pakistan, India
- B** Tajikistan, Azerbaijan, Pakistan, Iran
- C** Tajikistan, Afghanistan, Pakistan, India
- D** Turkmenistan, Afghanistan, Pakistan, India

Answer: D

Explanation:

The Turkmenistan-Afghanistan-Pakistan-India Pipeline (TAPI), also known as Trans-Afghanistan Pipeline, is a natural gas pipeline being developed by the Galkynysh - TAPI Pipeline Company Limited with participation of the Asian Development Bank. The pipeline will transport natural gas from the Galkynysh Gas Field in Turkmenistan through Afghanistan into Pakistan and then to India.

56. Mt. Everest is the highest mountain summit of the world. Rank the following summits in descending order of their heights?

- i. Makalu;
- ii. Kanchenjunga;
- iii. Godwin Austen;
- iv. Lhotse

- A** iv-i-iii-ii
- B** ii-iii-i-iv
- C** iii-ii-iv-i
- D** i-iv-ii-iii

Answer: C

Explanation:

Makalu - 8,481 m

Kanchenjunga - 8,586 m

Godwin Austen - 8,611 m

Lhotse - 8,516 m

Hence, option C is the correct answer.

57. Which religion was propounded by Mughal Emperor Akbar in 1582 A.D., with the intention of merging the best elements of different religions?

- A** Akbarnama
- B** Ain-i-Akbari

C Zij-i-Ilkhani

D Din-e-Ilahi

Answer: D

Explanation:

The Din-e-Ilahi was a syncretic religion propounded by the Mughal emperor Akbar in 1582 CE, intending to merge some of the elements of the religions of his empire, and thereby reconcile the differences that divided his subjects. The elements were primarily drawn from Islam and Hinduism, but some others were also taken from Christianity, Jainism, Sikhism and Zoroastrianism.

58. **Match the names in column 1 with their organization in column 2:**

	Column 1		Column 2
i	Christine Lagarde	a	UNFCCC
ii	Roberto Azevedo	b	IMF
iii	Christiana Figueres	c	World Bank
iv	Jim Yong Kim	d	WTO

A i-b; ii-a; iii-c; iv-d

B i-b; ii-d; iii-a; iv-c

C i-b; ii-a; iii-d; iv-c

D i-a; ii-c; iii-b; iv-d

Answer: B

Explanation:

Christine Madeleine Odette Lagarde is a French lawyer and politician who is currently serving as the Managing Director and Chairwoman of the International Monetary Fund.

Roberto Carvalho de Azevêdo is a Brazilian diplomat and the current Director-General of the World Trade Organization.

Karen Christiana Figueres Olsen is a Costa Rican diplomat with 35 years of experience in high level national and international policy and multilateral negotiations. She was appointed Executive Secretary of the UN Framework Convention on Climate Change in July 2010.

Jim Yong Kim, also known as Kim Yong, is a Korean-American physician and anthropologist serving as the 12th and current President of the World Bank since 2012.

Therefore, option B is the correct answer.

59. **If India exports more than it imports, which of the following is likely to happen?**

A INR is likely to appreciate against other currencies

B The supply of INR is likely to exceed the demand in the foreign exchange market, ceteris paribus

- C** INR would be under pressure to depreciate against other currencies
- D** Both B and C are correct

Answer: A

Explanation:

The appreciation of currency of a country depends on the following factors :

Net Inflow/Outflow of Money: *The overall inflow and outflow of the money affect the value of a country's currency. The more the inflow the better the value, the more the outflow the worst the value.*

Income Levels: *When the incomes of the citizens increase, they tend to spend more that increases the demand for imported goods increasing the demand for foreign currencies contributing to an overall weakening of the local currency.*

Overseas Market: *A country that has a trade surplus results in currency appreciation and the country that lacks or has lesser trade surplus tends to have a weaker value of its currency.*

When a country exports more than it imports, high funds flow into the country and directly impact economic growth, consumer spending and domestic demand and value of domestic currency will increase.

Hence, Option A is correct.

60. Which country has the longest coastline

- A** USA
- B** Australia
- C** India
- D** Canada

Answer: D

Explanation:

Canada has the longest coastline - 202,080 km.

61. Match the Countries with Trade Agreements/Regional Blocs:

	Country		Trade Agreements/Regional Blocs
i	Brazil	a	ASEAN
ii	Indonesia	b	APTA
iii	Bangladesh	c	MERCOSUR
iv	Mexico	d	NAFTA

- A** i-b; ii-c; iii-a; iv-d
- B** i-b; ii-a; iii-c; iv-d

C i-c; ii-b; iii-a; iv-d

D i-c; ii-a; iii-b; iv-d

Answer: D

Explanation:

APTA - Asia Pacific Trade Agreement. Members - **Bangladesh, China, India**, Mongolia, South Korea, Laos, **Sri Lanka**

ASEAN - Association of Southeast Asian Nations. Members - Singapore, Brunei, Malaysia, Thailand, Philippines, Indonesia, Vietnam, Laos, Cambodia and Myanmar

Mercosur is an economic and political bloc comprising Argentina, Brazil, Paraguay, Uruguay, and Venezuela.

NAFTA - Members: Mexico, Canada, USA

Hence, option D is the correct answer.

62. **The nomenclature of which of the following schemes is incorrect?**

A Rajiv Gram Samridhi Yojana

B Jawahar Rozgar Yojana

C Rajiv Awas Yojana

D Pradhan Mantri Gram Sadak Yojana

Answer: A

Explanation:

Rajiv Gram Samridhi Yojana is incorrect. Correct: Jawahar Gram Samridhi Yojana.

Rest of the scheme names are correct.

63. **Arrange the following Indian port cities beginning from East to West.**

i. Jamnagar

ii. Kochi

iii. Chennai

iv. Visakhapatnam

A i-ii-iii-iv

B iv-iii-ii-i

C ii-iv-i-iii

D iii-i-iv-ii

Answer: B

Explanation:

Visakhapatnam (Andhra Pradesh) is the most eastern port where as Jamnagar (Gujarat) is the most western port. Kochi is south of Jamnagar whereas Chennai is in the South-East direction. Therefore, from east to west -> Visakhapatnam, Chennai, Kochi, Jamnagar.

64. **Which of the following cities is at the junction of the highways known as North-South and East- West Corridors?**

- A** Delhi
- B** Nagpur
- C** Jhansi
- D** Hyderabad

Answer: C

Explanation:

Jhansi is at the junction of the highways known as North-South and East- West Corridors.

65. **According to the "Doing Business Report (2013)" of the World Bank, which BRIC nation holds the best ranking?**

- A** Russian Federation
- B** Brazil
- C** India
- D** China

Answer: D

Explanation:

China is ranked second in "Doing Business Report (2013)" in the entire world. Singapore is ranked 1st in "Doing Business Report (2013)".

66. **Which is the most abundant element in the universe?**

- A** Hydrogen
- B** Helium
- C** Oxygen
- D** Carbon

Answer: A

Explanation:

Hydrogen is the most abundant element in the Universe; **helium** is second. However, after this, the rank of abundance does not continue to correspond to the atomic number; **oxygen** has abundance rank 3, but atomic number 8. All others are substantially less common.

67. Which countries are separated by the McMahon line?

- A India and Pakistan
- B India and Bangladesh
- C China and India
- D China and Tibet

Answer: C

Explanation:

Section III

Section III part 1

Instructions [68 - 69]

Match the word in column 1 with its meaning in column 2.

68.

	Column 1		Column 2
i	Anthromorphous	a	Moving upwards
ii	Anachronistic	b	A collection of extracts from the writings of various authors
iii	Anthology	c	Having or resembling human form
iv	Ascension	d	Occurring in the wrong time period

- A i-b, ii-a, iii-d, iv-c
- B i-c, ii-b, iii-d, iv-a
- C i-c, ii-d, iii-b, iv-a
- D i-b, ii-c, iii-a, iv-d

Answer: C

Explanation:

The meaning of Anthromorphous is having or resembling a human form. Thus, c is the right match of i. The meaning of Anachronistic is to something that occurs in the wrong period of history. Thus, ii and d. The meaning of Anthology is a collection of poems, stories etc. that have been written by different people and published together in a book. Hence iii and b go together. The meaning of Ascension is to move upwards, and hence, iv and a matches.

Thus, i-c, ii-d, iii-b, iv-a

Hence, option C is the correct answer.

69.

	Column 1		Column 2
i	Cacology	a	Study of human character
ii	Ethology	b	Study of snow and ice
iii	Misology	c	Poor diction or poor choice of words
iv	Cryology	d	Hatred of reasoning

A i-d, ii-c, iii-a, iv-b

B i-c, ii-a, iii-d, iv-b

C i-a, ii-b, iii-c, iv-d

D None of the above

Answer: B

Explanation:

The meaning of Cacology is to defectively produced speech; socially unacceptable diction. Thus, i-c.

The meaning of Ethology is the study of human character. Thus, ii-a.

The meaning of Misology is distrust or hatred of reason or reasoning. Thus, iii-d.

The meaning of Cryology is the study of snow and ice. Thus, iv-b

Thus, the sequence is- i-c, ii-a, iii-d, iv-b

Hence, option B is the correct answer.

Instructions [70 - 71]

For each of the questions below, select the word that fits well in all the four given sentences.

70. i. The Bill _____ reduction in electoral expenses.

ii. The plan _____ ten percent growth in production.

iii. The budget _____ a two-fold increase in this year's turnover.

iv. The company _____ a good production year due to better harvest.

A seeks

B envisages

C hopes

D demands

Answer: B

Explanation:

The meaning of word envisages is Contemplate or conceive of as a possibility or a desirable future event.

Bill cannot demand reduction in electoral expenses and thus, demand is wrong

The budget cannot hope a two-fold increase in this year's turnover as Budget is made with a plan in mind.

The same goes with seeks.

Hence, only envisages fits all the sentences.

Hence, option B is the correct answer.

71. i. We _____ the room with an electric heater.
ii. His mother _____ lunch for all his friends.
iii. The will _____ the each child will receive half of the money.
iv. He _____ for his family by working overtime.

A prepared

B equipped

C arranged

D provided

Answer: D

Explanation:

We _____ the room with an electric heater. In this sentence, prepared cannot be used and thus, prepared is rejected.

His mother _____ lunch for all his friends. In this sentence, equipped cannot be used and thus, equipped is rejected.

He _____ for his family by working overtime. In this sentence, arranged cannot be used and thus, arranged is rejected.

Hence, only provided is can be appropriately used in all the 4 sentences.

Hence, option D is the correct answer.

Instructions [72 - 73]

Arrange the given sentences in the most logical sequence.

72. i. She was so innovative that she had begun to include the songs composed by Rabindranath Tagore in her repertoire even before the word "Rabindra Sangeet" was coined.
ii. Gauhar knew she could gain the goodwill of the Bengali babus by singing as many Bengali songs as she could in her soirees.
iii. Instead, she rendered them in her own style, giving them a classical twist.
iv. Gauhar was not afraid to defy the norms and in fact she seldom used the tunes that Tagore had set his songs to.

A i, ii, iii, iv

B ii, iv, iii, i

C ii, i, iv, iii

D iv, ii, i, iii

Answer: C

Explanation:

Statements i and ii cannot start the paragraph as they both begin with the pronoun 'She'. Out of ii and iv, ii gives more generalized information about Gauhar's singing prowess and hence will begin the paragraph.

Since statement i elaborates more on her singing style, it will be a direct follow-up to ii.

Now out of the four options, only C is following this pattern.

Thus, the correct option is C.

73. i. At dusk, I allowed Adele to put away books and work, and to run downstairs.
ii. Twilight and snowflakes together thickened the air hid the very shrubs
iii. The afternoon was wild and snowy and we passed it in the schoolroom.
iv. Left alone, I walked to the window but nothing was to be seen there.

- A** i, ii, iii, iv
B iii, i, iv, ii
C i, iii, iv, ii
D iv, iii, ii, i

Answer: B

Explanation:

Since statement III starts with a general statement about the afternoon weather, it is the aptest starting line of the paragraph.

Statement I follows up III by stating what happened at dusk(after an afternoon), where Adele was allowed to run downstairs. Now, since statement IV describes the scene after Adele left the room, the order of the statements will be III, I, IV, and II.

Thus, the correct option is B.

Instructions [74 - 75]

Select a word to replace the blank spaces.

74. **Alleviate : Aggravate :: Elastic :**_____

- A** Rigid
B Flexible
C Malleable
D Strong

Answer: A

Explanation:

The meaning of Alleviate is Make (suffering, deficiency, or a problem) less severe and the the meaning of Aggravate is Make (a problem, injury, or offence) worse or more serious.

Thus, as we can see that the analogy here is that the words are antonyms.

Hence, the antonym of Elastic is Rigid.

Hence, option A is the correct answer.

75. **Benevolent : Kind :: Unclear : _____**

- A** Bright
- B** Thick
- C** Luminous
- D** Muddy

Answer: D

Explanation:

Benevolent refers to well-meaning and kind.

The synonym of Unclear from the four options will be muddy as muddy refers to something vague or unclear.

Thus, the correct option is D

Instructions [76 - 79]

Select one word/phrase which is closest in meaning to the given phrase.

76. **Person who know or can speak many languages**

- A** Polyglot
- B** Potable
- C** Plebiscite
- D** Paramour

Answer: A

Explanation:

Polyglot: A person who knows or speaks many languages.

Potable: something drinkable.

Plebiscite: the direct vote of all the members of an electorate on an important public question such as a change in the constitution.

Paramour: a lover, especially the illicit partner of a married person.

Thus, the correct option is A.

77. **Deserving blame for an offence or crime**

- A** Hedonist
- B** Culpable
- C** Misanthrope

D Regicide

Answer: B

Explanation:

Hedonist: a person who believes that the pursuit of pleasure is the most important thing in life; a pleasure-seeker.

Culpable: Someone who deserves blame for an offence

Misanthrope: a person who dislikes humankind and avoids human society.

Regicide: the action of killing a king.

The correct option is B.

78. **To have a jaundiced eye**

A to be prejudiced

B to have an ailing eye

C to have ill-feeling for someone

D none of the above

Answer: A

Explanation:

To have a jaundiced eye means to look at something with prejudice.

Thus, the correct option is A.

79. **To lose one's bearings**

A to become tried

B to give up

C to become mentally unstable

D to be uncertain of one's position

Answer: D

Explanation:

To lose one's bearing means to become lost or uncertain of the position.

Thus, the correct option is D.

80. **Which of the following statements is grammatically incorrect?**

A Will you pay by cash or by demand draft?

- B** Do you remember that Mr. Mehta made delicious kebabs and that he often held barbeque parties?
- C** There are, without a doubt, many good dishes to try here.
- D** The class teacher told Mrs. Kapoor that neither Priya nor Shikha are good dancers.

Answer: D

Explanation:

The verb in a sentence with neither/nor agrees with the noun or pronoun closest to it. In option D, since the subject is singular and the verb is plural, it is not grammatically correct.

Thus, the correct option is D.

81. Which of the following statements is grammatically correct?

- A** Each of the girls living in the orphanage had been ill-treated by her family before they were abandoned.
- B** Each of the girls living in the orphanage were ill-treated by their family before they were abandoned.
- C** Each of the girls living in the orphanage had been ill-treated by her family before she was abandoned.
- D** Each of the girls living in the orphanage was ill-treated by her family before she had been abandoned.

Answer: C

Explanation:

Since the indefinite pronoun '*each*' is singular, it will be followed by singular verbs. Thus, option B is incorrect. Since option A used a plural pronoun 'they' after 'each', it is also incorrect.

Also, since past perfect tense cannot precede the action of abandoning, option D is also incorrect.

Thus, the correct option is C.

82. As busy as a bee is an example of:

- A** an oxymoron
- B** a metaphor
- C** an adage
- D** a simile

Answer: D

Explanation:

Oxymoron: a figure of speech in which apparently contradictory terms appear in conjunction (e.g. *faith unfaithful kept him falsely true*)

Metaphor: a figure of speech in which a word or phrase is applied to an object or action to which it is not literally applicable.

Adage: a proverb or short statement expressing a general truth.

Simile: a figure of speech involving the comparison of one thing with another thing of a different kind, used to make a description more emphatic or vivid (e.g. *as brave as a lion*).

“as **busy as a bee**” is a **simile** because there is usage of 'as' in the sentence.

Instructions [83 - 84]

Select the option with incorrect spelling.

- A** Accidentally
- B** Asseverate
- C** Assassination
- D** Ammelioration

Answer: D

Explanation:

Ammelioration is the misspelt representation of the word 'Amelioration', which refers to the act of improving or making better.

Thus, the correct option is D.

- A** Gazzette
- B** Lustre
- C** Sergeant
- D** Bucolic

Answer: A

Explanation:

Gazzette is the misspelt representation of the word 'Gazette', which is a journal or newspaper.

Since the other three words are rightly spelt,

The correct option is A.

Instructions [83 - 84]

Select the most appropriate antonym for the given word.

83. **Apocryphal**

- A** authentic
- B** audacious
- C** blasphemous
- D** none of these

Answer: A

Explanation:

Apocryphal refers to something of doubtful authenticity.

The direct antonym of Apocryphal will be authentic.

Thus, the correct option is A.

84. **Capricious**

- A** crafty
- B** obvious
- C** erratic
- D** consistent

Answer: D

Explanation:

'Capricious' means 'given to sudden and unaccountable changes of mood or behaviour.' So, its most appropriate antonym is 'consistent'.

Hence, option D is the correct answer.

85. **Select the option which best changes the given sentence from active passive voice:**

The invigilator was reading out the instructions.

- A** The instructions were read by the invigilator.
- B** The instructions were being read out by the invigilator.
- C** The instructions had been read out by the invigilator.
- D** The instructions had been read by the invigilator.

Answer: B

Explanation:

The given active voice is, "The invigilator was reading out the instructions."

In this the past continuous tense of was reading needed to be changes to were being read.

The active voice of "The instructions were read by the invigilator." is "The invigilator was reading the

instructions."

Hence, option B is the correct answer.

Section III part 2

Instructions [86 - 89]

Read the passage given below and answer the questions that follow:-

Much remained a mystery about Bernie Madoff's crime even after he pleaded guilty in March 2009. But one thing, it that everybody knew was true was this: his wife and sons were guilty too. From the first weeks after his arrest, unidentified "former prosecutors" and "criminal lawyers who have followed the case" and "legal sources" were repeatedly quoted in various media outlets asserting that Ruth, Mark, and Andrew Madoff were under investigation and would soon be indicted. Glossy magazine articles would speculate carefully; garish Internet blogs would accuse recklessly; television commentators would wink and nod knowingly. All that fierce, smug certainty about their guilt~ unsupported by any cited facts-effectively drove Madoff's immediate family into exile.

In an era of hypermedia, with mobile phone paparazzi and Internet commentators constantly on the alert for ways to attract attention, it is worth noting that these attacks on the Madoff family were a sharp departure from the typical public reaction to cases of white-collar crime, going back more than a century. Of course, such criminals-confidence men, embezzlers, crooked politicians, fraudsters of all kinds-were attacked savagely by the press and the public when their crimes came to light. But their wives and children were almost never included in those attacks; rather they were almost always ignored or, at the very least, quickly left alone. There were a few exceptions where criminal charges were actually filed against a close relative, who was then pulled to the whipping post of public attention. In general, however, even the wives and children of executed murderers were left to rebuild their lives in relative obscurity, unless they sought the spotlight themselves.

The treatment over the years of organized-crime defendants is instructive. Despite widespread fascination with the murderous escapades of so-called "Mafia dons" and crime-family "capes", it was extremely rare for any attention to fall on the elderly Mrs. Mafia Don or the capos' children-even though a realist might have wondered how much they knew about Why their husband or father had asked all his closest buddies to wear guns and sleep on mattresses in the garage. On rare occasions, a mobster's relatives actively courted publicity. But those who didn't were routinely ignored by the media and certainly were never publicly and repeatedly accused of complicity in their husbands' Or fathers' crimes. Yet the public outcry against Ruth Madoff and her sons began almost from the instant of Madoff's arrest and did not cease. By the time he pleaded guilty, it was deafening.

From the beginning, however, there were facts in the Madoff case that just didn't seem to be consistent with the family's guilt. First, there was the fact that none of them fled the country. Perhaps Bernie Madoff, seventy years old at the time of his confession, felt too old and tired to leave as a wealthy fugitive; and perhaps Ruth, even if she were guilty and faced arrest and a lifelong imprisonment, would not leave without him. But his two sons, if they were guilty, had the opportunity, the means, and the motive to flee. The end was clearly in sight weeks in advance, there was still a princely sum in the bank, and they and their families were relatively young and portable. Surely, Madoff, before turning himself in, would have handed his sons the keys to the company jet and enough cash to let them live comfortably beyond the reach of the law for the rest of their lives. After all, if they were his accomplices, their only other option would have been to stay and go to prison.

And yet Madoff did not and neither did his wife or sons.

Then, there was his confession. Some hostile theorists immediately argued that Madoff and his guilty sons staged his confession so they could turn him in and thereby deflect suspicion from themselves. But this would have been a worthless gesture unless they all could have been absolutely sure that no incriminating evidence would surface later and none of their other low-level accomplices would finger the sons in a bid for leniency-assumptions that were not remotely realistic if the sons were actually guilty. Moreover, if Madoff truly believed anyone could be insulated from suspicion simply by turning himself in, wouldn't he have arranged for that to be Ruth?

Logic aside, assumptions about the family's guilt began to run up against the fact that, as the Madoff investigation progressed, the predicted arrests of his wife and sons simply did not happen.

86. According to the author, why did the wife and sons of Madoff not flee the country?

- A** Because Bernie Madoff had already pleaded guilty
- B** Because they did not have the opportunity and means to flee
- C** Because they had deflected suspicion from themselves by turning Bernie Madoff in
- D** None of the above

Answer: D

Explanation:

In the passage we are given that, 'After all, if they were his accomplices, their only other option would have been to stay and go to prison. And yet Madoff did not and neither did his wife or sons'. From this we can conclude that, the author believed the the wife and sons of Madoff not flee the country because they were innocent.

Hence, none of the given option is correct.

Hence, option D is the correct answer.

87. How did the family of Bernie Madoff react to media frenzy declaring them guilty?

- A** They launched counter publicity to prove they were not guilty
- B** They sued the media for defamation
- C** They stayed away from public eye
- D** They approached the media to confess their crime

Answer: C

Explanation:

The last of the 1st paragraph says, 'All that fierce, smug certainty about their guilt~ unsupported by any cited facts-effectively drove Madoff's immediate family into exile'. From this we can conclude that the family of Bernie Madoff stayed away from public eye.

Hence, option C is the correct answer.

88. What is the point the author has highlighted in the given passage?

- A** That the Madoff crime came to light because of the dynamism of hypermedia
- B** That the treatment over the years of organized-crime defendants has changed
- C** That media tends to run parallel trials to the court
- D** That families of criminals must also be indicated

Answer: B

Explanation:

In the second paragraph we are given that, 'In an era of hypermedia, with mobile phone paparazzi and Internet commentators constantly on the alert for ways to attract attention, it is worth noting that these attacks on the Madoff family were a sharp departure from the typical public reaction to cases of white-collar crime, going back more than a century. Of course, such criminals-confidence men, embezzlers, crooked politicians, fraudsters of all kinds-were attacked savagely by the press and the public when their crimes came to light. But their wives and children were almost never included in those attacks; rather they were almost always ignored or, at the very least, quickly left alone'.

Notice the sentences- these attacks on the Madoff family were a sharp departure from the typical public reaction and But their wives and children were almost never included in those attacks; rather they were almost always ignored or, at the very least, quickly left alone.

From this we can conclude that, that the treatment over the years of organized-crime defendants has changed.

Thus, the point the author has highlighted in the given passage is that the treatment over the years of organized-crime defendants has changed.

Hence, option B is the correct answer.

89. **Which of the following sentences is incorrect?**

- A** It was the facts about the Madoff case that indicated that his family was guilty
- B** Madoff had been arrested following his confession
- C** Media has always shown extensive interest in the exploits of mafia dons and other criminals
- D** Madoff had committed a white-collar crime

Answer: A

Explanation:

In the starting of the 4th paragraph it is given that, "From the beginning, however, there were facts in the Madoff case that just didn't seem to be consistent with the family's guilt" and from this we can conclude that option A is incorrect.

In the 1st paragraph it is given that, "From the first weeks after his arrest, unidentified "former prosecutors" and" and thus option B is correct.

In the 3rd paragraph it is given that, "Despite widespread fascination with the murderous escapades of so-called "Mafia dons" and crime-family "capes", it was" from this we can conclude that option C is correct.

In the 2nd paragraph it is given that, "In an era of hypermedia, with mobile phone paparazzi and Internet commentators constantly on the alert for ways to attract attention, it is worth noting that these attacks on the Madoff family were a sharp departure from the typical public reaction to cases of white-collar crime, going back more than a century"

Thus, option D is the correct.

Hence, option A is the correct answer.

Instructions [90 - 93]**Read the following passage and answer the following questions:-**

Many years ago, one mustard dominated the supermarket shelves: French's. It came in a plastic bottle. People used it on hot dogs and bologna. It was yellow mustard, made from ground white mustard seed with turmeric and vinegar, which gave it a mild, slightly metallic taste. If you looked hard in the grocery store, you might find something in the speciality-foods section called Grey Poupon, which was Dijon mustard, made from the more pungent brown mustard seed. In the early seventies, Grey Poupon was no more than a hundred-thousand-dollar-a-year business. Few people knew what it was or how it tasted, or had any particular desire for an alternative to French's or the runner-up, Gulden's. Then one day, the Heublein Company, which owned Grey Poupon, discovered something remarkable: if you gave people a mustard taste test, a significant number had only to try Grey Poupon once to switch from yellow mustard. In the food world that almost never happens; even among the most successful food brands, only about one in a hundred has that kind of conversion rate. Grey Poupon was magic.

So Heublein put Grey Poupon in a bigger glass jar, with an enamelled label and enough of a whiff of

Frenchness to make it seem as if it were still being made in Europe (it was made in Hartford, Connecticut, from Canadian mustard seed and white wine). The company ran tasteful print ads in upscale food magazines. They put the mustard in little foil packets and distributed them with airplane meals — which was a brand-new idea at the time. Then they hired the Manhattan ad agency Lowe Marschalk to do something, on a modest budget, for television. The agency came back with an idea: A Rolls-Royce is driving down a country road. There's a man in the backseat in a suit with a plate of beef on a silver tray. He nods to the chauffeur, who opens the glove compartment. Then comes what is known in the business world as the reveal. The chauffeur hands back a jar of Grey Poupon. Another Rolls Royce pulls up alongside. A man leans his hand out of the window. "Pardon me. Would you have any Grey Poupon?"

In the cities where the ads ran, sales of Grey Poupon leaped 40 to 50 percent, and whenever Heublein bought airtime in new cities sales jumped 40 to 50 percent again. Grocery stores put Grey Poupon next to French's and Gulden's. By the end of the 1980's Grey Poupon was the most powerful brand in mustard. "The tagline in the commercial was that this was one of life's finer pleasures." Larry Elegant, who wrote the original Grey Poupon spot, says, "and that, along with the Rolls Royce, seemed to impart to people's minds that this was something truly different and superior."

The rise of Grey Poupon proved that the American supermarket shopper was willing to pay more — in this case \$3.99 instead of \$1.49 for eight ounces — as long as what they were buying carried with it an air of sophistication and complex aromatics. Its success showed, furthermore, that the boundaries of taste and custom were not fixed: that just because mustard had always been yellow didn't mean that customers would use 'only yellow mustard. It is because of Grey Poupon that the standard American supermarket today has an entire mustard section. And it is because of Grey Poupon that a man named Jim Wigon decided, four years ago, to enter the ketchup business. Isn't the ketchup business today exactly where mustard was thirty years ago? There is Heinz and, far behind, Hunt's and Del Monte and a handful of private label brands. Jim Wagon wanted to create the Grey Poupon of ketchup.

Wigon is from Boston. He runs his ketchup business- under the brand World's Best Ketchup-out of the catering business of his partner, Nich Schiarizzi, in Norwood, Massachusetts. He starts with red peppers, Spanish onions, garlic. and a high-end tomato paste. Basil is chopped by hand, because the buffalo chopper bruises the leaves. He uses maple syrup, not corn syrup, which gives him a quarter of the sugar of Heinz. He pours his ketchup into a clear ten-ounce jar, and sells it for three times the price of Heinz, and for the past few years he has crisscrossed the country, peddling World's Best in six regular, sweet, dill, garlic, caramelized onion, and basil to speciality grocery stores and supermarkets. If you were in Zabar's on Manhattan's Upper West Side a few months ago, you would have seen him at the front of the store, in the spot between the sushi and the fish. In front of him, on a small table, was a silver tureen filled with miniature chicken and beef meatballs, a box of toothpicks, and a dozen or so open jars of his ketchup. "Try my ketchup!" Wigon said, over and over, to anyone who passed. "If you don't try it, you're doomed to eat Heinz the rest of your life."

In the same aisle at Zabar's that day two other demonstrations were going on, so that people were starting at one end with free chicken sausage, sampling a slice of prosciutto, and then pausing at the World's Best stand before heading for the cash register. They would look down at the array of open jars, and Wigon would impale a meatball on a toothpick, dip it in one of his ketchups, and hand it to them with a flourish. The ratio of tomato solids to liquid in World's Best is much higher than in Heinz, and the maple syrup gives it an unmistakable sweet kick. Invariably, people would close their eyes, just for a moment, and do a subtle double take. Some of them would look slightly perplexed and walk away, and others would nod and pick up a jar. "You know why you like it so much?" he would say, in his broad Boston accent, to the customers who seemed most impressed. "Because you have been eating bad ketchup all your life!" Jim Wigon had a simple vision: build a better ketchup — the way Grey Poupon built a better mustard — and the world will beat a path to your door.

90. **Why has the author termed Grey Poupon as “magic”?**

- A** It had a different taste and was seen as belonging to speciality-food division
- B** It was made from Dijon mustard
- C** It commanded a conversion rate uncommon in the food world
- D** It came in a bigger glass jar than French’s

Answer: C

Explanation:

In the 1st paragraph we are given that, 'Then one day, the Heublein Company, which owned Grey Poupon, discovered something remarkable: if you gave people a mustard taste test, a significant number had only to try Grey Poupon once to switch from yellow mustard. In the food world that almost never happens; even among the most successful food brands, only about one in a hundred has that kind of conversion rate. Grey Poupon was magic'

From this we can conclude that, the author termed Grey Poupon as “magic” because It commanded a conversion rate uncommon in the food world.

Hence, option C is the correct answer.

91. **How many years did it take for Grey Poupon to grow from a hundred-thousand dollar a year brand to the most powerful brand in mustard?**

- A** Less than 5 years
- B** About 5-10 years
- C** About 15-20 years
- D** More than 25 years

Answer: C

Explanation:

In the 1st paragraph we are given that, 'In the early seventies, Grey Poupon was no more than a hundred-thousand- dollar-a-year business.'

and in the 3rd paragraph we are given that, 'By the end of the 1980’s Grey Poupon was the most powerful brand in mustard'.

From this we can conclude that, It took about 15-20 years for Grey Poupon to grow from a hundred-thousand dollar a year brand to the most powerful brand in mustard.

Hence, option C is the correct answer.

92. **What kind of audience was Grey Poupon reaching out to through its ads?**

- A** Frequent Flyers
- B** Those who did not like the taste of French’s
- C** Buyers of large quantities of mustard

D Rich and sophisticated customers

Answer: D

Explanation:

In the passage we are given that, 'By the end of the 1980's Grey Poupon was the most powerful brand in mustard. "The tagline in the commercial was that this was one of life's finer pleasures." Larry Elegant, who wrote the original Grey Poupon spot, says, "and that, along with the Rolls Royce, seemed to impart to people's minds that this was something truly different and superior."

From this, we can conclude that Rich and sophisticated customers were the audience Grey Poupon was reaching out to through its ads.

Hence, option D is the correct answer.

93. Which of the following statements is correct?

A World's Best Ketchup was cheaper than Heinz

B Wigon claimed that people will be doomed if they tried Heinz Ketchup

C World's best Ketchup was thicker than Heinz

D People who were perplexed with the taste tended to pick up the jar of World's Best Ketchup

Answer: C

Explanation:

In the last paragraph, 'The ratio of tomato solids to liquid in World's Best is much higher than in Heinz, and the maple syrup gives it an unmistakable sweet kick'.

From this, we can conclude that World's best Ketchup was thicker than Heinz.

Hence, option C is the correct answer.

Instructions [94 - 97]

Read the passage given below and answer the questions that follow:

To equate 'capitalism' with 'greed' is a mistake. We tend to confuse self-interest in the marketplace with selfishness or greed. At the heart of capitalism is the idea of exchange between ordinary, self-interested human beings, who seek to advance their interests peacefully in the marketplace. Adam Smith called this 'rational self-interest'. It is the same motive that gets one to jump out of bed in the morning or makes one carry an umbrella if it rains--nothing selfish about that. To be human is to be self-interested, and this is what exchange in the marketplace entails.

Greed or selfishness, on the other hand, is an excess of self-interest and often transgresses on the rights of others. It is present in all of us, but we find it easier to see it in others and difficult to see it in ourselves. Greed can motivate theft, entail himsa--hurting another whose opposite, ahimsa, is a virtue that Mahatma Gandhi extolled. But the other side of greed is ambition, a positive thing, and when rightly directed, is life-affirming. Herein lies the conundrum of human existence: that the same inner forces that result in a vice can just as easily become virtues that can motivate the well-being of our species.

Those who believe that capitalism has been forced on us by the imperial West are also wrong. Friedrich

Hayek, the Noble laureate, called the market a spontaneous order—it is natural for human beings to exchange goods and services, and this is how every society evolved money, laws, conventions and morals to guide behavior in the marketplace. These are natural products of human endeavor. Competing and cooperating in the marketplace existed in India before the West was imperial or modern.

Whether we like it or not, India is headed in the direction of some sort of democratic capitalism. After two decades of reforms, hardly anyone in India wants state ownership of production, where the absence of competition corrodes the character even more, as we know too well from the dark days of the 'license raj'. Our animus against capitalism has diminished after communism's fall as people increasingly believe that markets do deliver greater prosperity, but most think that capitalism is not a moral system. They continue to believe that morality must depend on religion.

Although the market is neither moral nor immoral, human self-interest usually brings about good behavior in the marketplace. A seller who does not treat his customers with fairness and civility will lose market share. A company that markets defective products will lose customers. A firm that does not promote the most deserving employees will lose talent to its competitors. A buyer who does not respect the market price will not survive. Lying and cheating will ruin a firm's image, making it untouchable to creditors and suppliers. Hence, free markets offer powerful incentives for ethical conduct, but they must be backed by state institutions that enforce contracts and punish criminal behavior. If the market has an inbuilt morality, why are there so many crooks in the marketplace? The answer is that there are crooked people in every society, and this is why we need effective regulators, policeman and judges. We should design our institutions to catch crooks and not harass innocent people as we do so often.

The other cause of our grief is to mistake being 'pro-market' with being 'pro-business'. To be 'pro-market' is to believe in competitive markets, which help to keep prices low and gradually raise the quality of products. The competition also means that some businesses will die because they are poorly managed and cannot compete. Kingfisher Airlines and Air India should be allowed to die and not be bailed out by the government. Thus, being pro-market leads to 'rules-based capitalism'. 'Pro-business' often leads to 'crony capitalism'. Not to have explained this difference has been the great mistake of our reformers and this has led to the false impression that the reforms only make the rich richer. Crony capitalism exists in India today because of the lack of reforms in the sector such as mining and real estate. To get rid of crony capitalism, we need more rather than less reform.

The doom-mongers, who claim that we are now resigned to live in an age of decaying moral standards, are also wrong. Yes, the new Indian middle class is permissive and indulges enthusiastically in harmless pleasures. Yes, it is materialistic, consumerist and capitalistic. But these impulses are not to be mistaken for greed. Only when one's pleasure hurts another does it become a matter of the law and then, of course, it must be punished. The shared imagination of the new India, with its harmless pleasure and victimless vice, should not be condemned. Think of ours as a society in transition. Mass wealth is profoundly disturbing but once there is enough, India might again return to its old character of renunciation.

Instead of religious rules, young Indians are motivated by duties to fellow human beings rather than to gods. Those who accuse them of shallow materialism ignore the injustices that prevailed when religion held a monopoly on morality. They overlook real ethical progress with regard to sexual and caste equality that our secular society has begun to deliver. So, the next time Kejriwal makes an expose and the TV screams 'greed' do not fall into the trap of believing capitalist culture is morally sick or that we should return to a moral order rooted in socialism or religion.

94. Which of the following statement correctly reflects the views of the author?

A Greed entails both himsa and ahimsa

- B** Self interest does not necessarily lead to selfish behaviour
- C** Being pro market lead to the rich becoming richer
- D** Both B and C

Answer: B

Explanation:

In the second paragraph author states that greed entails himsa, but there is no mention that it entails ahimsa too. Hence option A is incorrect.

Author never stated that pro market is a means to become richer, hence option C is incorrect.

The the author starts the passage by saying, 'We tend to confuse self-interest in the marketplace with selfishness or greed.'

Thus, Self interest does not necessarily lead to selfish behaviour correctly reflects the views of the author. Hence, option B is the correct answer.

95. Which of the following options most closely explains what the author wants to say, in the sentence beginning with: "Herein lies the conundrum of human existence:..."

- A** The enigma of human existence is that vices and virtues can result from the same inner forces.
- B** The bane of human existence is that vices and virtues can result from the same inner forces.
- C** The boon of human existence is that the same inner forces can lead to vices and virtues.
- D** The solution for human existence is that the same inner forces can lead to vices and virtues.

Answer: A

Explanation:

“Herein lies the conundrum of human existence:...” is given in the second paragraph. In the second paragraph we are given that that greed can motivate theft, entail himsa and also we are given that greed leads to ambition and if it is rightly directed, it can be a positive force.

From this it we can conclude that the enigma of human existence is that vices and virtues can result from the same inner forces.

Hence, option A is the correct answer.

96. **As wealth spreads in society, what is likely to happen according to the author?**

- A** India will have to resign itself to decaying moral standards
- B** India may once again embrace renunciation
- C** The moral order in India will become deeply rooted in religion
- D** None of the above

Answer: B

Explanation:

The author says, 'Mass wealth is profoundly disturbing but once there is enough India might again return to its old character of renunciation.'

From this, we can conclude that As wealth spreads in society India may once again embrace renunciation. Hence, option B is the correct answer.

97. Which of the following statements does not reflect the views given in this passage?

- A** Indian society is undergoing a change, and the middle class is emerging.
- B** Crony capitalism exists in India today because of the government's pro-market policies.
- C** The Indian youth today is driven by moral duties to fellow citizens rather than religious diktats.
- D** Free markets need the oversight of state institutions to punish crooks and criminals.

Answer: B

Explanation:

The author mentioned in the sixth paragraph that "being pro market leads to rule based capitalism" while pro business leads to "crony capitalism" Hence B is not the view mentioned in the passage. All the other statements A, C and D are mentioned in the passage.

Instructions [98 - 101]

Read the passage given below and answer the questions that follow:-

Brazil is a top exporter of every commodity that has seen dizzying price surges - iron ore, soybeans, sugar - producing a golden age for economic growth Foreign money-flows into Brazilian stocks and bonds climbed heavenward, up more than tenfold, from \$5 billion a year in early 2007 to more than \$50 billion in the twelve months through March 2011.

The flood of foreign money buying up Brazilian assets has made the currency one of the most expensive in the world, and Brazil one of the most costly, overhyped economies. Almost every major emerging- market currency has strengthened against the dollar over the last decade, but the Brazilian Real is on a path alone, way above the pack, having doubled in value against the dollar.

Economists have all kinds of fancy ways to measure the real value of a currency, but when a country is

pricing itself this far out of the competition, you can feel it on the ground. In early 2011 the major Rio paper, O Globo, ran a story on prices showing that croissants are more expensive than they are in Paris, haircuts cost more than they do in London, bike rentals are more expensive than in Amsterdam, and movie tickets sell for higher prices than in Madrid. A rule of the road: if the local prices in an emerging market country feel expensive even to a visitor from a rich nation, that country is probably not a breakout nation.

There is no better example of how absurd it is to lump all the big emerging markets together than the frequent pairing of Brazil and China. Those who make this comparison are referring only to the fact that they are the biggest players in their home regions, not to the way the economies actually run. Brazil is the world's leading exporter of many raw materials, and China is the leading importer; that makes them major trade partners - China surpassed the United States as Brazil's leading trade partner in 2009 but it also makes them opposites in almost every important economic respect: Brazil is the un-China, with interest rates that are too high, and a currency that is too expensive. It spends too little on roads and too much on welfare, and as a result has a very un-China-like growth record.

It may not be entirely fair to compare economic growth in Brazil with that of its Asian counterparts, because Brazil has a per capita income of \$12,000, more than two times China's and nearly ten times India's. But even taking into account the fact that it is harder for rich nations to grow quickly, Brazil's growth has been disappointing. Since the early 1980s the Brazilian growth rate has oscillated around an average of 2.5 percent, spiking only in concert with increased prices for Brazil's key commodity exports. While China has been criticized for pursuing "growth at any cost," Brazil has sought to secure "stability at any cost." Brazil's caution stems from its history of financial crises, in which overspending produced debt, humiliating defaults, and embarrassing devaluations, culminating in a disaster that is still recent enough to be fresh in every Brazilian adult's memory: the hyperinflation that started in the early 1980s and peaked in 1994, at the vertiginous annual rate of 2,100 percent.

Wages were pegged to inflation but were increased at varying intervals in different industries, 50 workers never really knew whether they were making good money or not. As soon as they were paid, they literally ran to the store with cash to buy food, and they could afford little else, causing non-essential industries to start to die. Hyperinflation finally came under control in 1995, but it left a problem of regular behind. Brazil has battled inflation ever since by maintaining one of the highest interest rates in the emerging world. Those high rates have attracted a surge of foreign money, which is partly why the Brazilian Real is so expensive relative to comparable currencies.

There is a growing recognition that China faces serious "imbalances" that could derail its long economic boom. Obsessed until recently with high growth, China has been pushing too hard to keep its currency too cheap (to help its export industries compete), encouraging excessively high savings and keeping interest rates rock bottom to fund heavy spending on roads and ports. China is only now beginning to consider a shift in spending priorities to create social programs that protect its people from the vicissitudes of old age and unemployment.

Brazil's economy is just as badly out of balance, though in opposite ways. While China has introduced reforms relentlessly for three decades, opening itself up to the world even at the risk of domestic instability, Brazil has pushed reforms only in the most dire circumstances, for example, privatizing state companies when the government budget is near collapse. Fearful of foreign shocks, Brazil is still one of the most closed economies in the emerging world - total imports and exports account for only 15 percent of GDP - despite its status as the world's leading exporter of sugar, orange juice, coffee, poultry, and beef.

To pay for its big government, Brazil has jacked up taxes and now has a tax burden that equals 38 percent of GDP, the highest in the emerging world, and very similar to the tax burden in developed European welfare states, such as Norway and France. This heavy load of personal and corporate tax on a relatively poor country means that businesses don't have the money to invest in new technology or training, which in turn

means that industry is not getting more efficient. Between 1986 and 2008 Brazil's productivity grew at an annual rate of :about 0.2 percent, compared to 4 percent in China. Over the same period, productivity grew in India at close to 3 percent and in South Korea and Thailand at close to 2 percent.

98. **According to the passage, the major concern facing the Brazil economy is:**

- A** Despite being a major exporter of several key primary commodities, the openness of the economy has not improved.
- B** High tax incidence on the household and company incomes, which restricts the ability of the firms to facilitate innovation and skill formation.
- C** Insufficient spending of budgetary resources on infrastructure augmentation, which hurts economic interests.
- D** All of the above

Answer: D

Explanation:

In the 4th paragraph we are given that , "Brazil is the un-China, with interest rates that are too high, and a currency that is too expensive. It spends too little on roads and too much on welfare, and as a result has a very un-China-like growth record."

From this we can conclude that, Insufficient spending of budgetary resources on infrastructure augmentation, which hurts economic interests.

In the last paragraph the author states, "This heavy load of personal and corporate tax on a relatively poor country means that businesses don't have the money to invest in new technology or training, which in turn means that industry is not getting more efficient."

From this we can conclude that, High tax incidence on the household and company incomes, which restricts the ability of the firms to facilitate innovation and skill formation.

Since 2 of the given statements are true thus, all the statements must be true and we need not verify the 1st sentence.

Hence, option D is the correct answer.

99. **Brazil's quest for stability in its economy has originated From:**

- A** The bitter experience of financial crisis and hyperinflation in the nineties
- B** The need to maintain steady supply of commodity exports from its economy
- C** The urge to enhance economic growth further
- D** All of the above

Answer: A

Explanation:

"Brazil's caution stems from its history of financial crises, in which overspending produced debt, humiliating defaults, and embarrassing devaluations..."

"... Hyperinflation finally came under control in 1995, but it left a problem of regular behind. Brazil has battled inflation ever since by maintaining one of the highest interest rates in the emerging world."

From the above excerpts of paragraph 5 and 6, it can be inferred that Hyperinflation and the resulting financial crisis were the reason for their instability.

Thus, the correct option is A.

00. **Identify the false statement:**

- A** The Brazilian government in the past has shown lesser inclination towards quick implementation of reform measures,
- B** The inflow of foreign currency in Brazil has increased by around US \$ 45 Billion over the four-year period starting from 2007
- C** The annual productivity growth rate in China during 1980-2008 is found to be 20 times higher than the corresponding figure experienced by Brazil.
- D** The current inflation management practice of Brazil has proved its economy a significant edge vis-à-vis other countries.

Answer: D

Explanation:

"To pay for its big government, Brazil has jacked up taxes and now has a tax burden that equals 38 percent of GDP, the highest in the emerging world, and very similar to the tax burden in developed European welfare states, such as Norway and France."

It can be inferred from the last two paragraphs that the steps taken by Brazil have not improved its economy despite its status as the world's leading exporter of sugar, orange juice, coffee, poultry, and beef.

Thus, option D is a false statement.

01. **According to the passage, Brazil does not seem to be an exporter of which commodity combination?**

- A** Poultry and beef
- B** Iron ore and soybeans
- C** Croissants and bikes
- D** Sugar, orange juice and coffee

Answer: C

Explanation:

"Brazil is a top exporter of every commodity that has seen dizzying price surges - iron ore, soybeans, sugar"

"...despite its status as the world's leading exporter of sugar, orange juice, coffee, poultry, and _____"

Section IV

02. Suppose there are 4 bags. Bag 1 contains 1 black and $a^2 - 6a + 9$ red balls, bag 2 contains 3 black and $a^2 - 6a + 7$ red balls, bag 3 contains 5 black and $a^2 - 6a + 5$ red balls and bag 4 contains 7 black and $a^2 - 6a + 3$ red balls. A ball is drawn at random from a randomly chosen bag. The maximum value of probability that the selected ball is black, is

- A $16/a^2 - 6a + 10$
- B $20/a^2 - 6a + 10$
- C $1/16$
- D None of the above

Answer: D

Explanation:

Let us take the value of $a^2 - 6a + 3 = x$.

Thus, the number of red balls in bag 1 = $x+6$

The number of red balls in bag 2 = $x+4$

The number of red balls in bag 3 = $x+2$

The number of red balls in bag 4 = x

Bag 4 will have the minimum number of red balls.

The probability of a black ball = $\frac{1}{4} \left[\frac{1}{x+7} \right] + \frac{1}{4} \left[\frac{3}{x+7} \right] + \frac{1}{4} \left[\frac{5}{x+7} \right] + \frac{1}{4} \left[\frac{7}{x+7} \right]$

In order to maximize the probability we need to minimize the value of x

The minimum value of x can be is 0 as number of red balls cannot be negative.

Put $x=0$ we get $P(\text{Black ball}/\text{total}) = \frac{1}{4} \left[\frac{16}{(x+7)} \right] = \frac{4}{7}$

Hence, option D is the correct answer.

03. If the product of the integers a , b , c and d is 3094 and if $1 < a < b < c < d$, what is the product of b and c ?

- A 26
- B 91
- C 133
- D 221

Answer: B

Explanation:

$3094 = 2 \times 7 \times 13 \times 17$

Given, $1 < a < b < c < d$

Thus, $a = 2$, $b = 7$, $c = 13$ and $d = 17$

Hence, $b \cdot c = 7 \cdot 13 = 91$

Hence, option B is the correct answer.

04. **Mrs. Sonia buys Rs. 249.00 worth of candies for the children of a school. For each girl she gets a strawberry flavoured candy priced at Rs. 3.30 per candy; each boy receives a chocolate flavoured candy priced at Rs. 2.90 per candy. How many candies of each type did she buy?**

A 21, 57

B 57, 21

C 37, 51

D 27, 51

Answer: B

Explanation:

Let the number of strawberry flavoured candy = x and the number of chocolate flavoured candy = y

Thus, as given in the question:-

$$3.3x + 2.9y = 249$$

Using options,

$$\text{Option A} = 3.3 \cdot 21 + 2.9 \cdot 57 = 69.3 + 165.3 = 234.6 \text{ Rs} \neq 249$$

Hence, option A cannot be the answer.

$$\text{Option B} = 3.3 \cdot 57 + 2.9 \cdot 21 = 188.1 + 60.9 = 249$$

Thus, option B can be the answer.

$$\text{Option C} = 3.3 \cdot 37 + 2.9 \cdot 57 = 241.8 \neq 249$$

Hence, option C cannot be the answer.

$$\text{Option D} = 3.3 \cdot 27 + 2.9 \cdot 51 = 237 \neq 249$$

Thus, option D cannot be the answer.

Hence, option B is the correct answer.

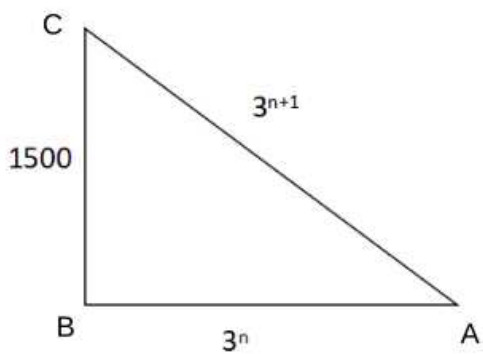
05. There is a triangular building (ABC) located in the heart of Jaipur, the Pink City. The length of the one wall in east (BC) direction is 1500 feet. If the length of south wall (AB) is perfect cube, the length of southwest wall (AC) is a power of three, and the length of wall in southwest (AC) is thrice the length of side AB, determine the perimeter of this triangular building.

- A** 4209 feet
- B** 4213 feet
- C** 4773 feet
- D** 4416 feet

Answer: D

Explanation:

The given condition is as shown below:-



Now, $3^n, 3^{n+1}$ pairs are (1,3), (27,81), (729, 2187) and so on

1500, 3 and 397 cannot form a triangle

1500, 81 and 397 cannot form triangle

1500, 729 and 2187 can form a triangle

Thus, the perimeter of the building = $1500 + 729 + 2187 = 4416$ feet

Hence, option D is the correct answer.

06. Out of 8 consonants and 5 vowels, how many words can be made, each containing 4 consonants and 3 vowels?

- A** 700
- B** 504000
- C** 3528000
- D** 7056000

Answer: C

Explanation:

Out of 8 consonants and 5 vowels selecting 4 consonants and 3 vowels can be done in ${}^8C_4 * {}^5C_3 = 8 * 7 * 6 * 5 * 5 * 4$

$$4 * 3 * 2 * 2$$

$$= 700$$

Internal arrangement of 7 letters = 7!

Thus, the total number of ways = $7! * 700 = 352800$

Hence, option C is the correct answer.

07. If $x^2 + 3x - 10$ is a factor of $3x^4 + 2x^3 - ax^2 + bx - a + b - 4$ then the closest approximate values of a and b are

A 25, 43

B 52, 43

C 52, 67

D None of the above

Answer: C

Explanation:

If $x^2 + 3x - 10$ is a factor of $3x^4 + 2x^3 - ax^2 + bx - a + b - 4$

Then $x = -5$ and $x = 2$ will give $3x^4 + 2x^3 - ax^2 + bx - a + b - 4 = 0$

Substituting $x = -5$ we get,

$$3(-5)^4 + 2(-5)^3 - a(-5)^2 + b(-5) - a + b - 4 = 0$$

Solving we get,

$$26a + 4b = 1621 \dots\dots (i)$$

Substituting $x = 2$ we get,

$$3(2)^4 + 2(2)^3 - a(2)^2 + b(2) - a + b - 4 = 0$$

$$\Rightarrow 5a - 3b = 60 \dots\dots (ii)$$

Solving i and ii we get

$$a \text{ and } b \approx 52, 67$$

Hence, option C is the correct answer.

08. If the product of n positive integers is n^n , then their sum is

A a negative integer

B equal to n

C $n + \frac{1}{n}$

D never less than n^2

Answer: D

Explanation:

We know that for a given product the sum of all the numbers will be the least when all the numbers are

equal

Thus, the sum of all the number in n^n will be least when

$$n^n = n * n * n * * (n \text{ times})$$

$$\text{Thus, their sum} = n + n + + (n \text{ times}) = n^2$$

Hence, the sum can never be less than n^2

Hence, option D is the correct answer.

09. A tennis ball is initially dropped from a height of 180 m. After striking the ground, it rebounds $(3/5)$ th of the height from which it has fallen. The total distance that the ball travels before it comes to rest is

A 540 m

B 600 m

C 720 m

D 900 m

Answer: C

Explanation:

While going down the ball will first cover 180m, then $\frac{180*3}{5}$, then $\frac{180*3*3}{5*5}$ and so on.

After rebounding the ball will cover $\frac{180*3}{5}$, then $\frac{180*3*3}{5*5}$ and so on

Thus, there are 2 infinite G.Ps here one of 180, $\frac{180*3}{5}$, $\frac{180*3*3}{5*5}$,

and other $\frac{180*3}{5}$, $\frac{180*3*3}{5*5}$,

Total distance covered by the ball = Distance covered while going up + Distance covered while going down

$$= 180 + \frac{180*3}{5} + \frac{180*3*3}{5} = 720 \text{ m.}$$

Hence, option C is the correct answer.

10. In a sports meet for senior citizens organized by the Rotary Club in Kolkata, 9 married couples participated in Table Tennis mixed double event. The number of ways in which the mixed double team can be made, so that no husband and wife play in the same set, is

A 1512

B 1240

C 960

D 640

Answer: A

Explanation:

In match we have to select 2 men and 2 women such that there is no couple.

2 men can be selected in 9C_2 way = 36

Now 2 women has to be selected such that they are these 2 men's wife and that can be done in 7C_2 ways = 21

Thus, the total number of ways in which a match can be played = $36 \times 21 = 756$

2 teams can be formed and thus, the required answer is $756 \times 2 = 1512$.

Hence, option A is the correct answer.

11. Two trains P and Q are scheduled to reach New Delhi railway station at 10.00 AM. The probability that train P and train Q will be late is $\frac{7}{9}$ and $\frac{11}{27}$ respectively. The probability that train Q will be late, given that train P is late, is $\frac{8}{9}$. Then the probability that neither train will be late on a particular day is

A $\frac{40}{81}$

B $\frac{41}{81}$

C $\frac{77}{81}$

D $\frac{77}{243}$

Answer: B

Explanation:

Let 'A' and 'B' be the event of train reaching at the station respectively.

$$P(A)_{\text{Late}} = \frac{7}{9}, \text{ therefore, } P(A)_{\text{On time}} = \frac{2}{9}.$$

$$P(B)_{\text{Late}} = \frac{11}{27}, \text{ therefore, } P(B)_{\text{On time}} = \frac{16}{27}.$$

The probability that train Q will be late, given that train P is late, is $\frac{8}{9}$.

$$P(B_{\text{Late}} | A_{\text{Late}}) = \frac{8}{9}$$

$$P(A_{\text{Late}} \cap B_{\text{Late}}) = P(A)_{\text{Late}} \times P(B_{\text{Late}} | A_{\text{Late}})$$

$$P(A_{\text{Late}} \cap B_{\text{Late}}) = \frac{7}{9} \times \frac{8}{9} = \frac{56}{81}$$

Therefore, the probability that neither train is late = $1 - (P(A)_{\text{Late}} + P(B)_{\text{Late}} - P(A_{\text{Late}} \cap B_{\text{Late}}))$

$$\Rightarrow 1 - (\frac{7}{9} + \frac{11}{27} - \frac{56}{81})$$

$$\Rightarrow \frac{41}{81}$$

Hence, we can say that option B is the correct answer.

12. A survey was conducted to test relative aptitudes in quantitative and logical reasoning of MBA applicants. It is perceived (prior to the survey) that 80 percent of MBA applicants are extremely good in logical reasoning, while the other 20 percent are extremely good in quantitative aptitude. Further, it is believed that those with strong quantitative knowledge are also sound in data interpretation, with conditional probability as high as 0.87. However, some MBA applicants who are extremely good in logical reasoning can be also good in data interpretation, with conditional probability 0.15. An applicant surveyed is found to be strong in data interpretation. The probability that the applicant is also strong in quantitative aptitude is

A 0.4

B 0.6

C 0.8

D 0.9

Answer: B

Explanation:

We are given that 80% MBA applicants are extremely good in logical reasoning. Also, some MBA applicants who are extremely good in logical reasoning can be also good in data interpretation, with conditional probability 0.15.

Therefore, the probability of that an applicant is sound in data interpretation as well as logical reasoning = $0.80 \times 0.15 = 0.12$

We are given that the other 20 percent are extremely good in quantitative aptitude. Also, some MBA applicants who are extremely good in quantitative aptitude can be also good in data interpretation, with conditional probability 0.87.

Therefore, the probability of that an applicant is sound in data interpretation as well as quantitative aptitude = $0.20 \times 0.87 = 0.174$

An applicant surveyed is found to be strong in data interpretation then probability that the applicant is also strong in quantitative aptitude is =

0.174

$0.174 + 0.12 \approx 0.60$. Hence, option B is the correct answer.

13. Your friend's cap is in the shape of a right circular cone of base radius 14 cm and height 26.5 cm. The approximate area of the sheet required to make 7 such caps is

A 6750 sq cm

B 7280 sq cm

C 8860 sq cm

D 9240 sq cm

Answer: D

Explanation:

A cone is formed when the 2 edges of the sector of a circle are joined.

We have to find the central angle subtended to find out the area of the sheet required to make the cone. It has been given that the height of the cone is 26.5 cm and the base radius is 14 cm.

The slant height of the cone will be equal to the radius of the sector of the circle.

$$\text{Slant height} = \sqrt{26.5^2 + 14^2} = \sqrt{898.25}$$

$\sqrt{898.25}$ is very close in value to $\sqrt{900}$

Let us use $\sqrt{900}$ for the ease of calculation.

$$\sqrt{900} = 30 \text{ cm.}$$

$$\text{Area of sheet required to make 1 cap} = \text{Curve surface area of the cone} = (\pi)rl = (22/7) \times 14 \times 30 = 1320$$

$$\text{Area of sheet required to make 7 cap} = 7 \times 1320 = 9240 \text{ sq cm}$$

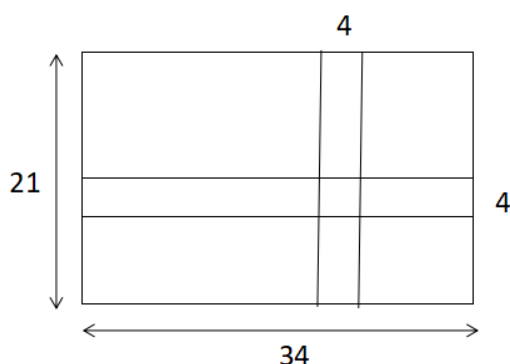
14. In an engineering college there is a rectangular garden of dimensions 34 m by 21 m. Two mutually perpendicular walking corridors of 4 m width have been made in the central part and flowers have been grown in the rest of the garden. The area under the flowers is

- A 320 sq m
- B 400 sq m
- C 510 sq m
- D 630 sq m

Answer: C

Explanation:

The given situation is as shown below:-



$$\text{The area of the walking corridor} = 4 \times 34 + 4 \times 21 - 4 \times 4 = 204 \text{ m}^2$$

$$\text{The area of the garden} = 34 \times 21 = 714 \text{ m}^2$$

$$\text{Thus, the area of the garden} = 714 - 204 = 510 \text{ m}^2$$

Hence, option C is the correct answer.

15. If decreasing 70 by X percent yields the same result as increasing 60 by X percent, then X percent of 50 is
- A** 3.84
- B** 4.82
- C** 7.10
- D** The data is insufficient to answer the question

Answer: A

Explanation:

Given that,

$$70x \quad 60x$$

$$70 - 100 = 60 + 100$$

$$\text{Thus, } 7000 - 70x = 6000 + 60x$$

$$\Rightarrow 1000 = 130x$$

$$\text{Thus, } x \approx 7.7$$

$$\text{Thus, } 7.7\% \text{ of } 50 = \frac{7.7 \times 50}{100} \approx 3.84\%$$

Hence, option A is the correct answer.

16. A rod is cut into 3 equal parts. The resulting portions are then cut into 12, 18 and 32 equal parts, respectively. If each of the resulting portions have integer length, the minimum length of the rod is
- A** 6912 units
- B** 864 units
- C** 288 units
- D** 240 units

Answer: B

Explanation:

The rod is cut into 3 equal parts thus the length of the rod will be a multiple of 3.

Each part is then cut into $12 = 2^2 \times 3$

$18 = 2 \times 3^2$ and $32 = 2^5$ parts and thus, each part of rod has to be a multiple of $2^5 \times 3^2 = 288$

Thus, the rod will be a multiple of $288 \times 3 = 864$

Thus, the minimum length of the rod is 864 units.

Hence, option B is the correct answer.

17. If $\log_{10} x - \log_{10} \sqrt[3]{x} = 6 \log_x 10$ then the value of x is

- A** 10
- B** 30
- C** 100

D 1000

Answer: D

Explanation:

$$\log_{10} x - \log_{10} \sqrt[3]{x} = 6 \log_x 10$$
$$\frac{\log x}{\log 10} - \frac{1}{3} \frac{\log x}{\log 10} = 6 \frac{\log 10}{\log x}$$

$$\text{Thus, } \log 10 - \frac{1}{3} \log 10 = 6 \frac{\log 10}{\log x}$$

$$\frac{2}{3} \log 10 = 6 \frac{\log 10}{\log x}$$
$$\Rightarrow \frac{2}{3} \log 10 = 6 \frac{\log 10}{\log x}$$

$$\text{Thus, } \Rightarrow \frac{2}{3} \log 10 = 6 \frac{\log 10}{\log x}$$
$$\Rightarrow \frac{2}{3} \log 10 = 6 \frac{\log 10}{\log x}$$

$$\text{Thus, } (\log x)^2 = 9$$

$$\text{Thus } \log x = 3 \text{ or } -3$$

$$\text{Thus, } x = 1000 \text{ or } 1000$$

From amongst the given options, 1000 is the correct answer.

Hence, option D is the correct answer.

18. A mother along with her two sons is entrusted with the task of cooking Biryani for a family get-together. It takes 30 minutes for all three of them cooking together to complete 50 percent of the task. The cooking can also be completed if the two sons start cooking together and the elder son leaves after 1 hour and the younger son cooks for further 3 hours. If the mother needs 1 hour less than the elder son to complete the cooking, how much cooking does the mother complete in an hour?

A 33.33%

B 50%

C 66.67%

D None of the above

Answer: B

Explanation:

Let the time taken by the Younger son to make the whole biryani be y hours and the time taken by the Elder son to make the whole biryani be e hours.

Thus, the time taken by the mother to make the biryani = $e - 1$

Now we are given that, the biryani will be made in 4 hours if the elder son works for 1 hour and the younger son works for 4 hours.

1

4

Thus, in 1 hour the elder son will complete $\frac{1}{e}$ of the biryani and in 4 hours the younger son will complete $\frac{4}{y}$ of the biryani.

$$1 - 4$$

Thus, $e + y = 1$

$$\Rightarrow y + 4e = ey$$

$$\Rightarrow e = y - 4$$

Thus, the time taken by the mother = $y - 4 - 1 = y - 4$

We are given that, It takes 30 minutes for all three of them cooking together to complete 50 percent of the task.

Thus, in 1 hour they'll complete the task.

$$1 - y - 4 - y - 4$$

Thus, $y + y + y = 1$

$$\Rightarrow y + 4 = 1$$

$$\Rightarrow 4(y - 3) + y(y - 4) = 4y$$

$$\Rightarrow 4y - 12 + y^2 - 4y = 4y$$

$$\Rightarrow y^2 - 4y - 12 = 0$$

$$6$$

Solving we get, $y = 6$ hours and thus, $e = 6 - 4 = 2$ hours and thus, the time taken by the mother = 2 hours

Thus, the mother will complete 50% of the biryani in 1 hour.

Hence, option B is the correct answer.

19. It was a rainy morning in Delhi when Rohit drove his mother to a dentist in his Maruti Alto. They started at 8.30 AM from home and Rohit maintained the speed of the vehicle at 30 Km/hr. However, while returning from the doctor's chamber, rain intensified and the vehicle could not move due to severe water logging. With no other alternative, Rohit kept the vehicle outside the doctor's chamber and returned home along with his mother in a rickshaw at a speed of 12 Km/hr. They reached home at 1.30 PM. If they stayed at the doctor's chamber for the dental check-up for 48 minutes, the distance of the doctor's chamber from Rohit's house is

A 15 Km

B 30 Km

C 36 Km

D 45 Km

Answer: C

Explanation:

Let x (in km) be the distance from the home to the clinic

Thus, the time taken to reach the clinic = $\frac{x}{30}$ hours

$$\frac{48}{x} = \frac{4}{x}$$

They stay at the clinic for $60 = 5$ hours

x

The time taken to reach home from clinic = 12 hours

Total time = 5 hours

$$\frac{x}{2x} + \frac{4}{48} + \frac{x}{5x}$$

Thus, $30 + 5 + 12 = 5$

$$2x + 48 + 5x$$

$$\Rightarrow 60 + 60 + 60 = 5$$

$$\text{Thus, } 300 = 7x + 48$$

$$\text{Thus, } x = 36$$

Hence, the doctor's clinic is 36 kms away.

Hence, option C is the correct answer.

20. Two alloys of aluminium have different percentages of aluminium in them. The first one weighs 8 kg and the second one weighs 16 kg. One piece each of equal weight was cut off from both the alloys and first piece was alloyed with the second alloy and the second piece alloyed with the first one. As a result, the percentage of aluminium became the same in the resulting two new alloys. What was the weight of each cut-off piece?

A 3.33 kg

B 4.67 kg

C 5.33 kg

D None of the above

Answer: C

Explanation:

Let x and y be the percentage of aluminum in the 8 kg and 16 kg piece.

Let us take a kg away from both.

Thus, we will have xa and ya amount of aluminum in both the pieces.

In the remaining $8-a$ and $16-a$ pieces we will have $(8-a)x$ and $(16-a)y$ amount of aluminum.

$$\frac{(8-a)x + ay}{8} = \frac{(16-a)y + ax}{16}$$

$$\text{Given that, } \frac{(8-a)x + ay}{8} = \frac{(16-a)y + ax}{16}$$

$$\text{Thus, } 2 * (8x - ax + ay) = 16y - ay + ax$$

$$\Rightarrow 16x - 2ax + 2ay = 16y - ay + ax$$

$$\text{Thus, } 16(x - y) = 3a(x - y)$$

$$16$$

$$\text{Thus, } a = \frac{16}{3} = 5.33$$

Hence, option C is the correct answer.

21. Three years ago, your close friend had won a lottery of Rs. 1 crore. He purchased a flat for Rs. 40 lakhs, a car for Rs. 20 lakhs and shares worth Rs. 10 lakhs. He put the remaining money in a bank deposit that pays compound interest @ 12 percent per annum. If today, he sells off the flat, the car and the shares at certain percentage of their original value and withdraws his entire money from the bank, the total gain in his assets is 5%. The closest approximate percentage of the original value at which he sold off the three items is

- A 60 percent
- B 75 percent
- C 90 percent
- D 105 percent

Answer: C

Explanation:

Hi total gain = 5%

Thus, the amount at the end of 3 years = 105 lakh Rupees

The amount he gets from the bank = $30(1.12)^3 = 42.14784$ lakh rupees

Let x be the percentage at which he sells the assets of worth 70 lakhs

Thus, the amount he gets = $0.7x$ lakhs

Thus, $70x + 42.1478 = 105$

Thus, $70x = 62.8525$

Thus, x is closest to $0.90 = 90\%$

Hence, option C is the correct answer.

22. $\log_{13}\log_{21}(\sqrt{x+21} + \sqrt{x}) = 0$ then the value of x is

- A 21
- B 13
- C 81
- D None of the above

Answer: D

Explanation:

$$\log_{13}\log_{21}(\sqrt{x+21} + \sqrt{x}) = 0$$

$$\text{Thus, } \log_{21}(\sqrt{x+21} + \sqrt{x}) = 1$$

$$\text{Thus, } (\sqrt{x+21} + \sqrt{x}) = 21$$

$$\text{Let, } \sqrt{x} = t$$

$$\text{Thus, } x = t^2$$

$$\text{Thus, } x + 21 = t^2 + 21$$

$$\text{Thus, } \sqrt{t^2 + 21} + t = 21$$

$$\text{Thus, } (t^2 + 21) = (21 - t)^2$$

$$\Rightarrow t^2 + 21 = 441 - 42t + t^2$$

$$\Rightarrow 42t = 420$$

Hence, $t = 10$

Hence, option D is the correct answer.

23. If x is real, the smallest value of the expression $3x^2 - 4x + 7$ is :

A $2/3$

B $3/4$

C $7/9$

D None of the above

Answer: D

Explanation:

$3x^2 - 4x + 7$ is the given quadratic equation

The smallest value of a given quadratic equation $ax^2 + bx + c = 0$ occurs at $x = \frac{-b}{2a}$

Thus, the smallest value of the given expression will occur at $x = \frac{-(-4)}{2 \times 3} = \frac{2}{3}$

Thus, the smallest value of the given expression is $3 \times \left(\frac{2}{3}\right)^2 - 4 \times \left(\frac{2}{3}\right) + 7 = \frac{17}{3}$

Hence, option D is the correct answer.

24. The average of 7 consecutive numbers is P. If the next three numbers are also added, the average shall

A remain unchanged

B increase by 1

C increase by 1.5

D increase by 2

Answer: C

Explanation:

Let the 7 consecutive numbers be $a-3, a-2, a-1, a, a+1, a+2$ and $a+3$.

Sum of the numbers = $7a$ and the average of these numbers = a

If next 3 numbers $a+4, a+5$ and $a+6$ are also added then the average of these 10 numbers =

$$\frac{7a + a + 4 + a + 5 + a + 6}{10} = a + 1.5$$

Thus, the average increases by 1.5

Hence, option C is the correct answer.

25. The duration of the journey from your home to the College in the local train varies directly as the distance and inversely as the velocity. The velocity varies directly as the square root of the diesel used per km., and inversely as the number of carriages in the train. If, in a journey of 70 km. in 45 minutes with 15 carriages, 10 litres of diesel is required, then the diesel that will be consumed in a journey of 50 km. in half an hour with 18 carriages is

- A 2.9 litres
- B 11.8 litres
- C 15.7 litres
- D None of the above

Answer: B

Explanation:

Let D be the distance, T be the time, V be the velocity, N be the number of carriages and X be the liters of Diesel required.

D

Given $T \propto V$

$$\sqrt{\frac{X}{D}}$$

Also given that, $V \propto N$

$$k * N * D^{\frac{3}{2}}$$

Thus, $T = \sqrt{X}$

Given when in a journey of 70 km, in 45 minutes with 15 carriages, 10 litres of diesel is required

$$k * 15 * 70^{\frac{3}{2}}$$

Thus, $45 = \sqrt{10}$

3

Thus, $k = 70\sqrt{7}$

In a journey of 50 km, in half an hour with 18 carriages

$$3 \quad 50\sqrt{50} * 18$$

$30 = 70\sqrt{7} * \sqrt{X}$

$$9 * \sqrt{50}$$

Thus, $\sqrt{X} = 7 * \sqrt{7}$

Thus, $X = 11.8$

Hence, option B is the correct answer.

26. Capacity of tap Y is 60% more than that of X. If both the taps are opened simultaneously, they take 40 hours to fill the tank. The time taken by Y alone to fill the tank is

- A 60 hours
- B 65 hours

C 70 hours

D 75 hours

Answer: B

Explanation:

We are given that $\frac{1.6Y}{1} = \frac{X}{1}$

Thus, $1.6Y + Y = 40$

$\Rightarrow 104/1.6 = Y$

Thus, $Y = 65$ hours.

Hence, option B is the correct answer.