

IIFT - 2018
(Section – 4)

Directions (Questions 57 – 60): Based on the information given below, answer the questions which follow.

The data on select economic indicators for entire world comprising of 7 regions namely East Asia & Pacific, Europe & Central Asia, Latin America & Caribbean, Middle East & North Africa, North America, South Asia and Sub-Saharan Africa is presented in Table-1 for the year 2017. Further, Table-2 represents the economic indicators for select countries.

GN1 refers to Gross National Income (USD Billions), PPP refers to Purchasing Power Parity (USD Billions), POP refers to Population (Millions) and SA refers to Surface Area (Thousands sq. km)

Table-1 : Economic Indicators for Different Regions of World

Regions/Indicators	POP	SA	GNI	PPP
East Asia & Pacific	2,314	24,825	23,538	42,085
Europe & Central Asia	915.5	28,461	20,738	29,793
Latin America & Caribbean	644	20,426	5,282	9,838
Middle East & North Africa	444	11,371	3,220	8,890
North America	363	19,816	20,561	21,291
South Asia	1,788	5,135	3,118	11,693
Sub-Saharan Africa	1,061	24,291	1,543	3,908

Table-2 : Economic Indicators for Select Countries

Countries/Indicators	POP	SA	GM	PPP
India	1,339	3,287	2,430	9,449
Estonia	1.3	45	24	41
Kyrgyz Republic	6.5	200	1	22
Lao PDR	7	237	.16	46
Latvia	2	65	29	53
United States	326	9,832	18,980	19,608

57. Arrange the countries in order of increasing population density (number of people per sq. kms).
- Estonia, Kyrgyz Republic, Lao PDR and Latvia
 - Estonia, Latvia, Kyrgyz Republic and Lao PDR
 - Estonia, Lao PDR, Kyrgyz Republic and Latvia
 - Estonia, Lao PDR, Latvia and Kyrgyz Republic

(d); Population density = $\frac{POP}{SA}$

Estonia = $\frac{1.3}{45} = 0.028$

Kyrgyz = $\frac{6.5}{200} = .0325$

Lao = $\frac{7}{237} = 0.029$

Latavia = $\frac{2}{65} = 0.030$

∴ Increasing order is
Estonia, LaoDPR, Latavia, Kyrgyz Republic

58. For which of the region, the 'GNI per capita' is closest to that of 'GNI per capita' of world?
- East Asia & Pacific
 - Europe & Central Asia
 - Latin America & Caribbean
 - North America

(a); GNI per capita = $\frac{GNI}{Pop}$

For world = $\frac{78000}{7529.5} = 10.36$

EA & P = $\frac{23538}{2314} = 10.17$

$$E \& CA = \frac{20738}{915.5} = 22.65$$

$$LA \& C = \frac{5282}{644} = 8.20$$

$$NA = \frac{20561}{363} = 56.64$$

∴ Ans is East Asia & Pacific

59. What percentage of world's GNI is represented by combined GNI of India and US?

- (a) 28.98 (b) 28.42 (c) 27.45 (d) 30.19

(c); GNI world = 78,000

GNI India + US = 21,410

$$\therefore \text{Percentage} = \frac{21410}{78000} \times 100$$

= 27.45%

60. Which region has third lowest difference between 'PPP per capita' and 'GNI per capita'?

- (a) Latin America & Caribbean
 (b) South Asia
 (c) Middle East & North Africa
 (d) East Asia & Pacific

(b); $\frac{\text{PPP} - \text{GNI}}{\text{POP}}$ is the difference we need to calculate for all regions.

$$EAP = \frac{42085 - 23538}{2314} = 8.01$$

$$E \& CA = \frac{29793 - 20738}{915.5} = 9.89$$

$$LA \& C = \frac{9838 - 5282}{644} = 7.07$$

$$ME \& NA = \frac{8890 - 3220}{444} = 12.77$$

$$NA = \frac{21291 - 20561}{363} = 2.01$$

$$SA = \frac{11693 - 3118}{1788} = 4.79$$

$$\text{Sub SA} = \frac{3908 - 1543}{1061} = 2.22$$

∴ Third lowest is for South Asia

Directions (Questions 61 – 64): Based on the information given below, answer the questions which follow.

The occupancy rate of a hotel is the share of available rooms that are occupied during a given time. Figure-1 presents quarter wise average hotel occupancy in four regions (Asia-Pacific, America, Europe and Middle East & Africa) for the year 2016. Figure-2, shows the revenue of select hotel chains worldwide in 2016.

Figure-1 Region Wise Average Hotel Occupancy Rates

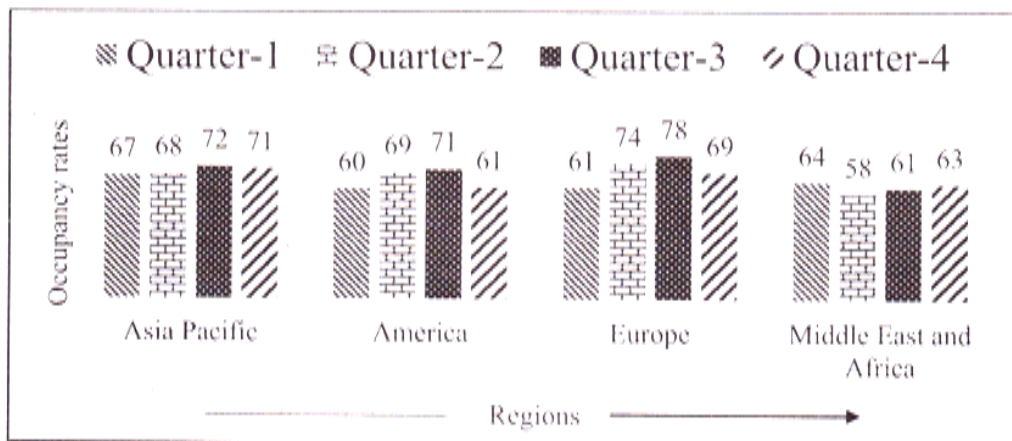
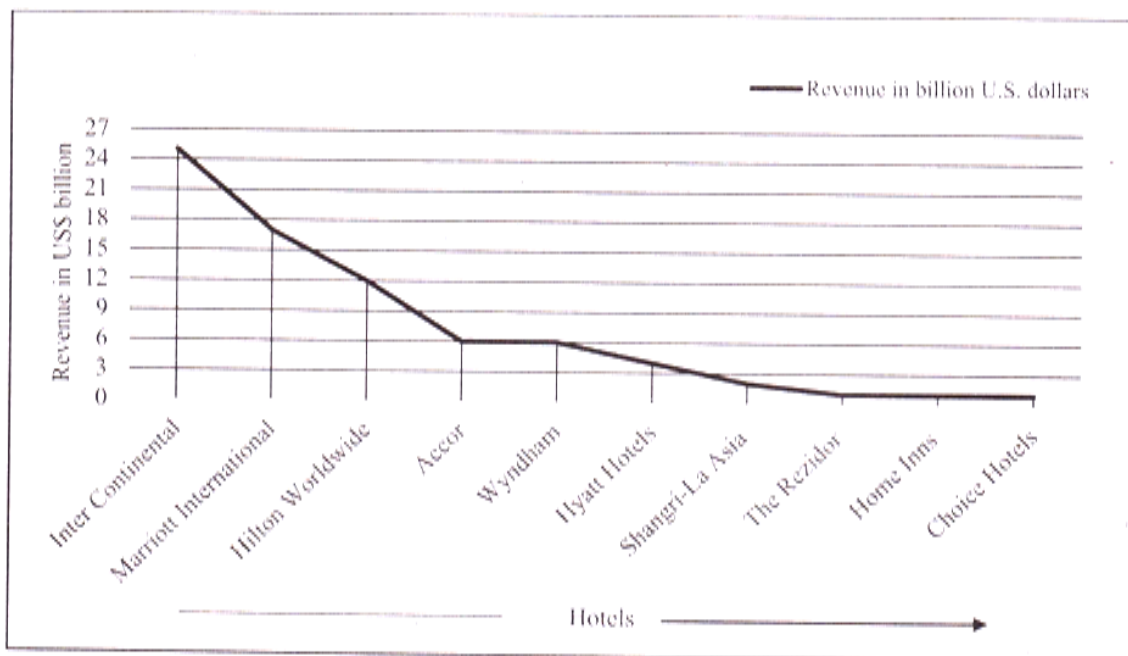


Figure-2 Revenue of Select Hotel Chains Worldwide



61. Considering the total revenue of the hotel industry in 2016 as 495.17 billion USD, what is the percentage contribution of revenue of select hotel chains to hotel industry revenue?
 (a) 13 (b) 14 (c) 15 (d) 16

(c); Revenue of select hotel chains can be calculated by adding the values in line graph = 75

$$\therefore \text{Percentage contribution} = \frac{75}{495.17} \times 100 = 15\%$$

62. For Hilton Worldwide, considering 70% average occupancy rate for 365 days of operations and average room rent of 350 USD per day, the total number of rooms available (in 000's) in Hilton Worldwide per day approximately are:
 (a) 150 (b) 130 (c) 160 (d) 170

(b); Total revenue of hiltan is 12 bn
 Which is equal to (No. of rooms) x .7 x 365 x 350
 $\therefore 12 \times 10^9 = N \times .7 \times 365 \times 350 \approx 130.$

63. If the number of available rooms in each of the four regions (Asia-Pacific, America, Europe and Middle East & Africa) are in the ratio 1:2:5:4, the average occupancy rate for Quarter-1 are:
 (a) 62 (b) 66 (c) 58 (d) 60

(a); Average occupancy = $\frac{67 \times 1 + 60 \times 2 + 61 \times 5 + 64 \times 4}{1 + 2 + 5 + 4} = 62$

64. Assuming that there is no change in the number of available rooms in a given year in all four regions, the correct arrangement in the increasing order of average annual occupancy rates is :

- (a) Asia-Pacific, Europe, America and Middle East & Africa
 (b) Middle East & Africa, America, Asia-Pacific and Europe
 (c) Asia-Pacific, America, Middle East & Africa and Europe
 (d) Middle East & Africa, America, Europe and Asia-Pacific

(b); Average annual occupancy for

Asia Pacific = $\frac{67 + 68 + 72 + 71}{4} = 69.5$

America = $\frac{60 + 69 + 71 + 61}{4} = 65.25$

Europe = $\frac{61 + 74 + 78 + 79}{4} = 70.5$

ME & A = $\frac{64 + 58 + 61 + 63}{4} = 61.5$

\therefore Increasing order is ME & A, America, Asia, Pacific & Europe.

Directions (Questions 65 – 68): Based on the information answer the questions which follow.

IBM is one of the most valuable technology brand in the world. Visualizing the trends, IBM has added and dropped business segments across years. For example, "Technology Services and Cloud Platforms (TSCP)" which started in 2015 only, generated a revenue of approximately 34280 million U.S. Dollars in 2017. Table shows the Global Revenue generated by IBM in nine different segments of its business from 2010 to 2017 in millions USD.

IBM's Global Revenue from 2010 to 2017 (in millions U.S. Dollars)

Years	TSCP	CS	GBS	SYS	GF	Other	SOFT	GTS	S&T
2010			18,220		2,240	750	22,490	38,200	17,970
2011			19,280		2,100	720	24,940	40,880	18,990
2012			18,570		2,010	580	25,450	40,240	17,670
2013			18,400		2,020	490	25,930	38,550	14,370
2014			17,800		2,000	500	25,400	37,100	10,000
2015	35,140	17,840	17,160	9,550	1,840	210			
2016	35,340	18,190	16,700	7,710	1,690	290			
2017	34,280	18,450	16,350	8,190	1,700	170			

TSCP-Technology Services & Cloud Platforms, CS-Cognitive Solutions, GBS-Global Business Services, SYS-Systems, GF-Global Financing, Other, SOFT-Software, GTS-Global Technology Services and S&T-Systems and Technology

65. For the year 2017, if the revenue in different segments is represented on a pie-chart, what sector angle would be represented by 'Global Business Services (GBS)'?
 (a) 75 Degree (b) 85 Degree (c) 80 Degree (d) 70 Degree

(a); Angle of GBS = $\frac{16350}{79140} \times 360 \approx 75$ degree

66. Which segment has earned third highest cumulative revenue in the time period 2010-2017?
 (a) Global Business Services (b) Software
 (c) Global Technology Services (d) Systems and Technology

(c); Cumulative revenue for different segments are

TSCP = 104760

CS = 54,480

GBS = 142,480

SYS = 25,450

GF = 15,600

Other = 3,710

SOFT = 124,210

GTS = 194,970

S&T = 79,000

∴ Highest is for Global Technology services

67. The profit booked by IBM in year 2012 is USD 49 billion. Considering equal percentage profit margins across all segments, then approximate profit made by 'Systems and Technology' in millions USD is
 (a) 8200 (b) 8500 (c) 8700 (d) 8900

(a); Total revenue for IBM in 2002 = 104,520

$$\therefore \text{Profit margin} = \frac{49}{104.52} \times 100$$

= 46.88%

∴ Profit of S & T = 8200 approx.

68. By how much is ratio of percentage of 'revenue from Global Business Services' to 'Total Revenue' lower than ratio of percentage of 'revenue from Cognitive Solutions' to 'Total Revenue' for the year 2016?
 (a) 1 (b) 2 (c) 3 (d) 5

(b); Total Revenue in 2016 = 79,920

$$\therefore \% \text{ of GBS} = \frac{16700}{79920} \times 100 = 20.89$$

$$\% \text{ of CS} = \frac{18190}{79920} \times 100 = 22.76$$

Difference $\Rightarrow 22.76 - 20.89 \approx 2$.

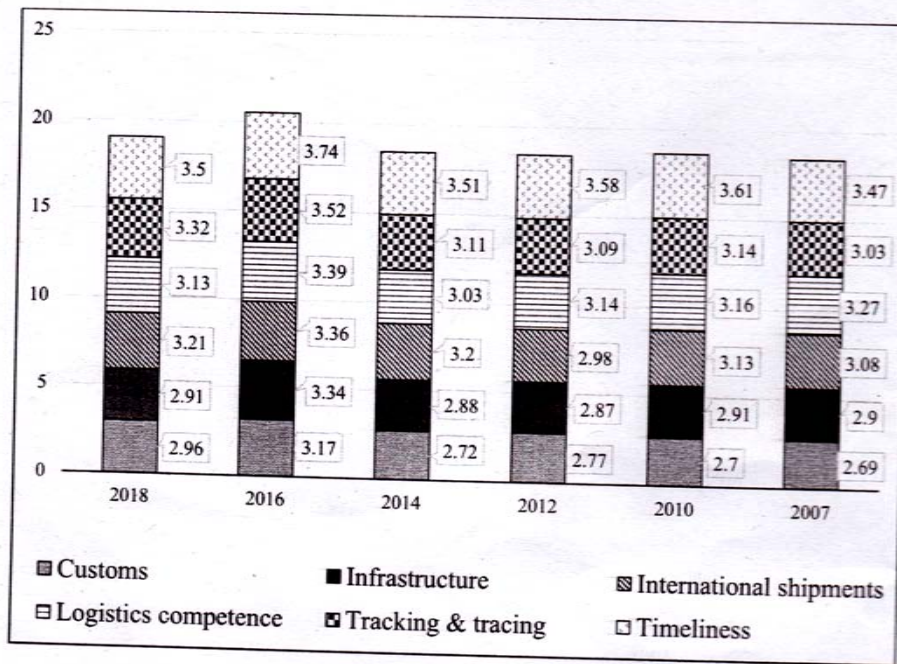
Directions (Questions 69 – 72): Based on the information answer the questions which follow.

The Logistics Performance Index (LP1) is an interactive benchmarking tool created by the World Bank to help countries identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance. It is a measure of the country scores on six key indicators: Customs, Infrastructure, International Shipments, Logistics Competence, Tracking & Tracing and Timeliness. Table shows the LPI indicators (on the scale of 1 to 5) of select countries on these indicators. Figure below presents the perceived performance of these indicators (on the scale of 1 to 5) of India on these 6 indicators.

Table: LPI Indicators of Select Countries in 2018

Countries/ Indicators	Customs	Infrastructure	International Shipments	Logistics Competence	Tracking & Tracing	Timeliness
Austria	3.71	4.18	3.88	4.08	4.09	4.25
UK	3.77	4.03	3.67	4.05	4.11	4.33
USA	3.78	4.05	3.51	3.87	4.09	4.08
Switzerland	3.63	4.02	3.51	3.97	4.1	4.24
France	3.59	4.00	3.55	3.84	4.00	4.15

Figure: LPI Indicators for India



69. Considering Logistics Performance Index as the average of the scores obtained on the six parameters, the correct sequence of the countries in increasing order of LPI in the year 2018 is
- UK, Austria, USA, Switzerland and France
 - Austria, UK, USA, Switzerland and France
 - France, USA, Switzerland, UK and Austria
 - UK, USA, Switzerland, Austria and France

(c); LPI for countries are

$$UK = \frac{23.96}{6} = 3.99$$

Austria = 4.03

USA = 3.89

Switzerland = 3.91

France = 3.85

∴ Increasing order is

France, USA Switzerland, UK, Austria

70. Arrange the countries in ascending order on the basis of score obtained on (Timeliness) - (Logistics Competence)
- Austria, USA, Switzerland, UK and France
 - Austria, USA, UK, Switzerland and France
 - Austria, Switzerland, USA, UK and France
 - Austria, USA, UK, France and Switzerland

(a); Difference for different countries are

$$Austria = 4.25 - 4.08 = .17$$

$$UK = 4.33 - 4.05 = .28$$

$$USA = 4.08 - 3.87 = .21$$

$$Switzerland = 4.24 - 3.97 = .27$$

$$France = 4.15 - 3.84 = .31$$

∴ Ascending order is Austria, USA, Switzerland, UK, France

71. In which year the difference between the score obtained on Timeliness between Germany and India is minimum considering the score obtained on Timeliness for Germany as 4.39, 4.45, 4.36, 4.32, 4.48 and 4.33 for 2018, 2016, 2014, 2012, 2010 and 2007 respectively?
 (a) 2016 (b) 2014 (c) 2012 (d) 2018

(a); Difference between Germany & India (Timelines) for different years are
 2018 → 4.39 – 3.5 = .89
 2016 → 4.45 – 3.74 = .71
 2014 → 4.36 – 3.51 = .85
 2012 → 4.32 – 3.58 = .74
 ∴ Minimum is for year 2016.

72. The difference in performance of which indicator in 2018 as compared to that of 2007 is minimum for India?
 (a) Customs (b) International Shipments
 (c) Timeliness (d) Tracking & Tracing

(c); Difference for year 2018 + 2007 value for India for given parameters are
 Customs = 2.96 – 2.69 = .27
 International shipments = 3.21 – 3.08 = .13
 Timelines = 3.50 – 3.47 = .03
 Tracking & tracing = 3.32 – 3.03 = .29
 It is minimum for Timelines.

Directions (Questions 73 – 76): Based on the information answer the questions which follow.

The data was collected for an industry in order to analyse the impact and importance of select parameters. The Figure represents performance of the industry on select parameters which are Fixed Capital, Materials, Value added and Number of Factories from the year 2008-09 to 2015-16. Total inputs = (Output - Value added). Table represents select performance indicators which are Output, Number of Workers and Emoluments from the year 2008-09 to 2015-16.

Figure: Industry Indicators from 2008-09 to 2015-16

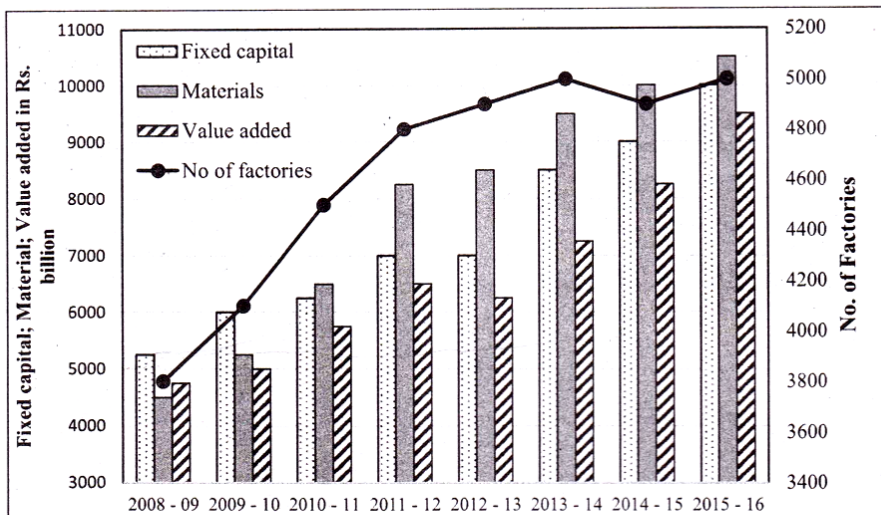


Table: Industry Indicators from 2008-09 to 2015-16

Year	Output in Rs. Billion	No. of workers	Emoluments in Rs. billion
2008 - 09	11442	2,39,966	65
2009 - 10	12241	2,50,009	81
2010 - 11	14993	2,89,965	102
2011 - 12	18250	3,25,000	135
2012 - 13	19249	3,30,000	147
2013 - 14	21493	3,80,000	177
2014 - 15	23251	3,69,996	202
2015 - 16	25506	3,99,988	245

73. In which of the following year annual growth rate in emoluments per worker is highest?
 (a) 2009 - 10 (b) 2011 - 12 (c) 2014 - 15 (d) 2015 - 16

		Emo per worker of given yr	Emo per worker of pr yr	growth in %	
A	2009-10	323988.3364	270871.7068	19.61%	Highest -
B	2011-12	415384.6154	351766.5925	18.09%	
C	2014-15	545951.8481	465789.4737	17.21%	
D	2015-16	612518.3756	545951.8481	12.19%	

(a);

74. In which of the following year fixed capital per factory is lowest?
 (a) 2008 - 09 (b) 2011 - 12 (c) 2013 - 14 (d) 2015 - 16

		Fixed Cap	No of factories	Ratio	
A	2008-09	5200	3800	1.37	Lowest
B	2011-12	7000	4800	1.46	
C	2013-14	8500	5000	1.70	
D	2015-16	10000	5000	2.00	

(a);

75. In which of the following year Material as a proportion of 'Total inputs' is highest?
 (a) 2008 - 09 (b) 209 - 10 (c) 2010 - 11 (d) 2011 - 12

		Material	Output	Value Added	Total Inputs	Ratio	
A	2008-09	4500	11442	4700	6742	0.67	
B	2009-10	5200	12241	5000	7241	0.72	Highest
C	2010-11	6400	14993	5700	9293	0.69	
D	2011-12	8250	18250	6500	11750	0.70	

(b);

76. For how- many years annual percentage growth in fixed capital is greater than annual percentage growth in number of factories?
 (a) 3 (b) 4 (c) 5 (d) 6

		Fixed Cap	Growth %	No of Factories	Growth %
	2008-09	5200		3800	
	2009-10	6000	15.38%	4100	7.89%
	2010-11	6200	3.33%	4500	9.76%
	2011-12	7000	12.90%	4800	6.67%
	2012-13	7000	0.00%	4900	2.08%
	2013-14	8500	21.43%	5000	2.04%
	2014-15	9000	5.88%	4900	-2.00%
	2015-16	10000	11.11%	5000	2.04%

(c);