OSF EDUCATION

* Choose The Right Answer From The Given Options. [6]

1. Which index number is equal to the index number obtained by family budget method ?

   (A) Laspeyre's Index number
   (B) Fisher's index number
   (C) Paasche's Index number
   (D) Marshall index number

2. if the average increase in 25% in price and 30 % in wages then what is the actual percentage increase in wages?

   (A) 10
   (B) 3.84
   (C) 20
   (D) 0.04

3. If the average disposable income of families of a class is Rs. 20,000 in the year 2013 as if the cost of living index number of that class for the year 2015 with the base year 2013 is 130, what should be the average disposable income of the families of this class in the year 2015 ?

   (A) Rs. 26,000
   (B) Rs. 20,130
   (C) Rs. 20,000
   (D) Rs. 14,000

4. Which index number gives the accurate picture of economic condition of a particular class of people in society for which it is fromed ?

   (A) Wholesale price index number
   (B) Cost of living index number
   (C) Index number of national income
   (D) Index number of human development

5. If the cost of living index number for the people of a class is 200 for the year 2016 with respect to the year 2015, which of the following statements is true ?

   (A) There is an average 200 percent rise in the current year prices of the items consume by that class

   (B) There is an average 100 percent decrease in the current year prices of the items consumed by that class

   (C) Purchasing power of money is Rs. 0.5.

   (D) The current year prices of the items consumed by that class are stable.

6. Which method is useful to compare the long term variations in the values of the variable ?

   (A) Chain base method
   (B) Laspeyre's method
   (C) Fixed base method
   (D) Paasche's method

* Answer The Following Questions In One Sentence. [6]

7. The price index number of oil is Rs. 500. State whether this statement is true or false and if false, correct and rewrite it.

8. Write down the formula to find index number of n items from price relatives.

9. What is a chain base index number ?

10. Write the main characteristic of fixed base method.
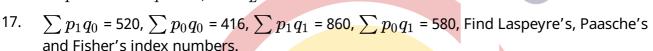
11. State the formula to determine the real wage.

12. The index number of sales of an Item for the year 2017 in relation to the year 2015 is 140. State the percentage change in the sales of the item.

* Answer The Following Questions as Directed. [12]

13. State the main difference between explicit weight and implicit weight.

14. The cost of living index numbers and average monthly wage from the year 2010 to 2013 are given as follows. Find the real wage for each year.

Year	2010	2011	2012	2013
Average monthly wage (Rs.)	35,000	40,000	42,000	50,000
Cost of living index number	120	150	130	160

15. The real wage of a worker during July, 2017 was Rs. 2780. If the cost of living index number for the class of worker for the month of July, 2017 is 260, then what will be the wage of the worker for July, 2017?

16. If I_F = 130 and I_P = 125, find I_L

17. $\sum p_1 q_0$ = 520, $\sum p_0 q_0$ = 416, $\sum p_1 q_1$ = 860, $\sum p_0 q_1$ = 580, Find Laspeyre's, Paasche's and Fisher's index numbers.

18. Convert the following index numbers obtained by fixed base method about the production of craft industry of a state into the chain base index numbers.

Year	2009	2010	2011	2012	2013	2014
Fixed base index numbers	120	132	96	144	138	108

* Answer The Following Questions as Directed. [18]

19. The information about six different items used in the production of an electronics item is follows. Find the index number and interpret it.

Items	A	B	C	D	E	F
Weight	5	10	10	30	20	25
Percentage price relative	290	315	280	300	315	320

20. State the limitations of cost of living index number.

21. The index numbers of average closing prices of shares of a certain company in different months with the base January 2014 are as follows. Find the chain base index numbers.

Month	Jan.'14	Feb.'14	March 14	April 14	May 14	June 14
Fixed base index number	100	104	105	108	109	127

22. The prices per unit R) of six food items in the year 2014 and 2015 are given in the following table. Taking 2014 as the base year, compute the general index number for the price of

food items and state the overall rise in prices of these food items.

Item	Unit	Price per unit (₹) of the item	
		Year 2014	Year 2015
Bread	Packet	25	28
Eggs	Dozen	30	35
Ghee	Tin	375	380
Milk	Litre	36	40
Cheese	Kilogram	440	500
Butter	Kilogram	265	300

23. The chain base index numbers obtained for food items from the year 2008- 09 to 2015—16 are as follows. Compute the fixed base index numbers. (Take 2007-08 as base year)

Year	2008−09	2009−10	2010−11	2011−12	2012−13	2013−14	2014−15	2015−16
Index number of food items	134.8	115.28	115.57	107.29	109.91	112.80	106.24	102.48

24. Find the index number for the year 2016 with base year 2011 by weighted average method from the following data of price and weights of five different items.

Item	Weight	Price (₹)	
		Year 2011	Year 2016
A	40	160	200
B	25	400	600
C	5	50	70
D	20	10	18
E	10	2	3

* **Answer The Following Questions as Directed.** [24]

25. Find Fisher's index number for the year 2015 by taking the year 2014 as the base year from the data given below about consumption and total expenditure of five different

items.

Item	Base Year 2014		Current Year 2015	
	Consumption	Total expenditure	Consumption	Total expenditure
A	50 kg	2500	60 kg	4200
B	120 kg	600	140 kg	700
C	30 litre	330	20 litre	200
D	20 kg	360	15 kg	300
E	5 kg	40	5 kg	50

26. Calculate the cost of living index number by the total expenditure method and the family budget method for the year 2015 with the base year 2014 using the following data.

Item	Wheat	Rice	Tuver Dal	Oil	Cloth	Kerosene
Unit	Quintal	kg	kg	litre	meter	litre
Quantity of year 2014	35 kg	25 kg	20 kg	10 litre	20 meter	15 litre
Price of year 2014 (₹)	1600	40	60	80	30	28
Price of year 2015 (₹)	1800	45	120	90	45	35

27. The fixed base index numbers of food from the month of January to October in the year 2015 for the industrial workers of Ahmedabad are as given below. Compute the chain base index numbers.

Month	January	February	March	April	May	June	July	August	September	October
Index number of food	271	270	268	268	278	283	283	293	293	299

28. The chain base index numbers for sales of a certain type of scooter from the year 2010 to 2015 are as follows. Find fixed base index numbers.

Year	2010	2011	2012	2013	2014	2015
Index number of sale	110	112	109	108	105	111

29. The index numbers of different groups of industrial output of a city and the weights of these groups are given below. Find the index number of the industrial production.

Group	Index Number	Weight
Iron	390.2	30
Textile	247.6	31
Chemical	510.2	18
Engineering goods	403.3	17
Cement	624.4	4

30. Find the real wages for the worker class of a city from the following data about their average monthly wage and the cost of living index number (base year 2001). Find the purchasing power of money in the year 2015 by taking the base year 2001 and state the importance of this answer.

Year	2010	2011	2012	2013	2014	2015
Average monthly wage (₹)	15,000	15,600	16,200	17,000	18,000	20,000
Cost of living index number	192	203	228	268	270	287

* **Calculate The Following Sums In Detail.** [30]

31. The quantity consumed and total expenditure of four different items are as given below. Find Paasche's and Fisher's index number for the year 2015 with respect to the year 2013.

Item	Base year 2013		Current year 2015	
	Total expenditure (Rs.)	Consumption (Quantity)	Total expenditure (Rs.)	Consumption (Quantity)
A	360	60 kg	375	25 kg
B	160	10 litre	416	30 litre
C	480	15 kg	613.2	6 kg
D	336	3 kg	400	2.5 kg

32. Compute the Fisher's index number from the data given below about six different items.

Item	A	B	C	D	E	F
Unit	20 kg	Quintal	kg	Litre	Meter	Dozen
Year 2013 Quantity	5 kg	10 kg	1200 gm	30 litre	12 meter	20 piece
Year 2013 Price (Rs.)	600	1600	60	52	8	30
Year 2013 Quantity	12 kg	12 kg	2000 gm	36 litre	20 meter	16 piece
Year 2013 Price (Rs.)	880	2400	75	32	12	36

33. Find the Laspeyrer's and Paasche's index number using the following data for the year 2015 by taking the year 2014 as the base year. Also find the Fisher's index number and interpret it.

Item	Base year 2014	Current year 2015

[5]

	Per unit price (Rs.)	Total expenditure (Rs.)	Per unit price (Rs.)	Total expenditure (Rs.)
Wheat	16	224	18	270
Rice	35	140	40	200
Tuver Dal	100	200	120	360
Oil	108	432	120	600

34. The data about the industrial production quantity and weights for the year 2015 are given below. Compute the index number of industrial production and interpret it.

Industry	Unit	Year 2013 production	Year 2015 production	Weight
Mine	Lakh tons	10	15	Rs.
Textile	Crore meters	20	25	6
Engineering	Lakh tons	30	25	30
Chemicals	Hundred tons	40	50	3
Food	Lakh tons	50	60	4

35. Compute the cost of living index number by the method of total expenditure from the following data:

Item	A	B	C	D	E
Unit	Quintal	20 kg	10 litre	dozen	meter
Quantity of year 2014	50 kg	18 kg	12 litre	20 pieces	14 meter
Price of year 2014 (₹)	1200	340	30	15	12
Price of year 2015 (₹)	1700	380	40	24	16

36. The following data are given about the index numbers and weights for the items of living of industrial workers in a city in the year 2014. Find the cost of living index number for industrial workers. If the average monthly salary paid to these workers in the year 2012 was ₹ 6,000, what should be the monthly salary in the current year 2014 to maintain the same standard of living ?

Group	Food	Fuel and Electricity	Housing	Clothing	Miscellaneous expense
Price index of 2014 (Base year 2012)	255	174	234	153	274
Weight	42	8	12	18	20

----- AJAY SIR - 9033642751 -----