Q.	Part A - Indian Economics Development	Marks
1	(a) Defense Equipment	1
2	Micro finance is a banking service that gives opportunity to low-income individuals/Unemployed to become self-dependent by providing those means to save money, borrowing money and insurance. Microfinancing is typically defined as the process of providing loans, credit, savings, and the other necessary financial services and products to individuals who are extremely poor to get access to the regular sources of finance	1
3	(d) Swarna Jayanti Shari Rozgar Yojana	1
4	Imported	1
5	(c) 6 to 14	1
6	(b) Physical capital	1
7	(d) All of the above	1
8	It refers to the process of moving from self-employment and regular salaried employment to casual wage work known as casualisation of the workforce.	1
9	(d) Both (a) and (b)	1
10	(a) Indian system of medicine	1
11	The Indian agriculture sector was severely affected by the partition. The effects of partition on agriculture were: (a) The partition of the country leads to a shortage of food grains. (b) Pakistan got a surplus of the foodgrains area while India got the majority of the population with less amount of foodgrains. (c) Only 68% cotton producing areas came to India's share, while more than 20% jute producing areas became part of Pakistan.	3

12	Privatization means the transfer of ownership, management, and control of the public sector enterprises to the private sector. **Ways of Privatisation:** **Transfer of ownership:** Government companies can be converted into private companies in the following two ways: • By the withdrawal of the government from the ownership and management of public sector companies • By the outright sale of public sector companies. **Disinvestment** • Privatisation of the public sector undertakings by selling off parts of the equity of PSUs to the private sector is known as disinvestment. • The purpose of the sale is mainly to improve financial discipline and facilitate modernisation.	3
13	There is a various need for promoting female education in India because of the following reasons: (i) Women education is essential for providing them economic independence and empowering them to save them from exploitation and domestic violence. (ii) Women education is essential in order to raise the social status of women so that the quality of life of women can be improved. (iii) Educating women helps in promoting family welfare programmes and thus in population control. (iv) Educated women are aware of the importance of health care and thus take proper care of their family members contributing to human capital formation. (v) Educating a woman means educating a family. An educated woman can inculcate moral values in her children and can facilitate their education.	4
14	Crop diversification refers to either change in cropping pattern or the farmers opting for other non-farming options like animal husbandry, poultry farming etc. This diversification helps farmers to expand the production which helps in generating a higher level of income. **Types of diversification:** There are two types of diversification: (a) Horizontal Diversification: This refers to multiple cropping instead of cultivating a single crop. It is useful for small farmers.	4

	(b) Vertical Diversification: It refers to the establishment with industrialisation along with multiple cropping. In this diversification, farmers take a further step and invest in activities like culture of aromatic plants, livestock rearing etc.	
15	**(a) Growth-oriented approach:** Growth-oriented approach was based on the expectation that the effects of economic growth will spread over to the poor section of the society as well. This approach was the major focus of planning in the 1950s and early 1960s. **(b) Determination of Poverty line:** Poverty line refers to that line which expresses per capita average monthly expenditure that is essentially required by the people to satisfy their minimum needs. As per the Tendulkar committee, the poverty line is estimated on a monthly basis as Rs. 816 in rural areas and Rs. 1000 in urban areas.	4
16	**The main problems of human capital formation in India are:** **(a) Growth in population:** The rapid rise of the population can influence the grade of human capital formation, mostly in developing countries. It degrades the per capita availability of the present facility. A large population involves extra investments. **(b) Long process:** The method applied for human development is a long-term process because skill enhancement requires extra time. Therefore, the process becomes very normally slow. **(c) Gender inequality and high regional disparity:** These two factors affect the human development skill. **(d) Insufficient on-job training:** In the agriculture sector, on-job training to handle advanced equipment is not provided to the worker. **(e) High poverty level:** In India, a large portion of the population is below the poverty line. Therefore, they do not have easy access to primary health and education.	6
17	The rural banking system has created a positive effect on rural farm and non-farm output, income and employment. It helps farmers to avail services and credit facilities and a variety of loans for meeting their production needs. With the help of credit facilities provided through the rural banking system, India has achieved food security which is reflected in the abundant buffer stocks of grains.	6

	(i) However, our banking system is not completely free from shortcomings. Except commercial banks, other formal institutions have failed to develop a culture of deposit mobilisation by lending to worthwhile borrowers and effective loan recovery. Agriculture loan default rates have been chronically high as farmers have failed to pay back loans either due to poor economic conditions or lack of willingness to pay back loans. (ii) Thus, the expansion and promotion of the rural banking sector has not proceeded at line desired pace after reforms. Banks need to change their approach from just being lenders to building up relationship banking with the borrowers in order to improve the situation. Farmers should be encouraged to inculcate the habit of thrift and to utilise financial resources efficiently for productive purposes.	
	SECTION-B Economics for Statistics	
18	**Consumption:** It refers to the process of making use of the utility value of goods and services for the direct satisfaction of consumer wants".	1
19	(a) equal chance of being selected	1
20	False, Non-sampling errors are related to collection of data.	1
21	decrease	1
22	(a) Mode = 3 median – 2 mean	1
23	(b) Mean	1
24	(d) Lorenz curve	1
25	Variance	1
26	True, In India inflation is measured on the basis of the wholesale price index.	1
27	(c) +1	1
28		3

Basis	Sampling error	Non-sampling error
(a) Meaning	Sampling errors are those errors which happen due to the sample selected not perfectly representing the population of interest.	Non-sampling errors are those errors which happen due to sources other than sampling while conducting survey activities is known as non-sampling error.

(b) Reasons	Sampling error arises because of the variation between the true mean value for the sample and the population.	On the other hand, the non-sampling error arises because of deficiency and inappropriate analysis of data.
(c) Random	sampling error occurs in the random sample only.	Non-sampling error can be random or non-random

OR

Basis	Inclusive Method	Exclusive Method
(a) Meaning	In the inclusive method, the upper limit of a class interval is included in the class itself.	In the exclusive method, the upper limit of the class is excluded from the class and is included in the next class
(b) Suitable	It is suitable for discrete variables.	It is suitable for continuous variables.
(c) Class interval	class intervals do not overlap e.g.10-19, 20-29, 30-39,etc.	class interval overlaps e.g.10-20, 20-30, 30-40,etc.

29 (3)

Following are the demerits of mode:

(a) Not based on all the observations of the series: The value of mode is not based on each and every item of the series as it considers only the highest concentration of frequencies.

(b) Not rigidly defined: There are two methods of determining mode, Inspection Method and Grouping Method. We may not get the same value of mode by the two methods. So, it is not rigidly defined.

(c) Affected by the fluctuations of sampling: Mode is affected by sampling fluctuations to a great extent.

30 (4)

Class Interval	Frequency (f)	Class Marks (X)	$d = \frac{X - A}{h}$ (A = 40)	fd

5 - 15	20	10	-3	-60
15 - 25	22	20	-2	-44
25 - 35	18	30	-1	-18
35 - 45	23	**40 (A)**	0	0
45 - 55	12	50	1	12
55 - 65	15	60	2	30
Total	100			-80

A = 40, h = 10

Mean = $A + \frac{\Sigma fd}{\Sigma f} \times h$

$= 40 + \frac{-80}{100} \times 10$

$= 40 - 8$

$= 32$

31

4

Marks (X)	**No. of students (f)**	**Mid-point (m)**	**fm**	**x = m - $\bar{x}$**	**x^2**	**fx^2**
20 - 40	6	30	180	-62	3,844	23,064
40 - 80	12	60	720	-32	1,024	12,288
80 - 100	20	90	1,800	-2	4	80
100 - 120	13	110	1,430	18	324	4,212
120 - 140	15	130	1,950	38	1,444	21,660
	N =Σf = 66		**Σfm = 6,080**			**Σfx^2 =** 61,304

Arithmetic mean ($\bar{x}$) = $\frac{\Sigma fm}{\Sigma f}$

$= \frac{6,080}{66}$

$= 92$

Standard deviation = $\sqrt{(\Sigma fx^2 / N)}$

Standard deviation = $\sqrt{(61,304 / 66)}$

$= 30.48$

32

Accountancy X	R_1	English Y	R_2	$(R_1 - R_2)$ D	D^2
35	3	37	6	-3	9
30	1	35	4	-3	9
40	7	31	1	+6	36
48	8	43	8	0	0
32	2	32	2	0	0
37	5	36	5	0	0
36	4	39	7	-3	9
38	6	33	3	3	9
N = 8					$\Sigma D^2 = 72$

$$rk = \frac{1 - 6\Sigma D^2}{N^3 - N}$$

Here, $\Sigma D^2 = 72$, $N = 8$

$$= 1 - \frac{6 \times 72}{8^3 - 8}$$
$$= 1 - \frac{432}{504}$$
$$= 1 - 0.86$$
$$= 0.14$$

Here, there is a low degree of positive correlation.

OR

Following are the usage of consumer price index number:
(a) It is commonly used in fixation of salary, dearness allowances to the employees.
(b) They are used by the govt, in formulation of price policy, wage policy and general economic policies.
(c) They are used in evaluation of purchasing power of money and deflating the money.

4

	(d) They are used for comparing the cost of living of different classes of people.	
33	Following are the functions of statistics: (a) Presentations of facts in figures: Statistics presents the various facts and figures in such a manner so that various complicated facts become easy, brief and concrete and they may be understood easily.	6

	(b) Establishment of relationship: With the help of various statistical methods, relationships between two or more facts may be established. (c) Comparison: Two or more effects may be compared with the help of statistics. Various average rates, percentages and coefficients are used for this purpose. (d) Interpretation of problem: With the help of statistical devices, interpretation of various problems may be done. (e) Formation of laws and principles of other science: Statistics helps to other social and natural sciences in forming the laws and with its help the various rules and principles of those sciences may be tested. (f) Helpful in deciding the policy: With the help of statistics various policy decisions may be taken logically and successfully. For example, price policy, export-import policy.	
34	Lorenz Curve is a graphical representation of the distribution of income or wealth. To draw a Lorenz Curve, follow these steps: (1) Gather the data (e.g., census data from two cities) (2) For each set of data, rank the categories and order them by rank in a table (3) Convert each value in a % of the total (4) Calculate the running totals (ie cumulative %, by adding the % of one line to the ones before) (5) Graph ranks (horizontal) against cumulative % (vertical) (6) Draw the "even distribution line" running from (rank = 0, % = 0) to (rank = max, % = 100%), which represents the line if all the categories were the same size. **OR** **Following are the major limitations of index numbers:** **(a) Difficulty in construction of index numbers:** The decision of objective, selection of base period, selection of commodities, selection of sources of data, selection of 'weights', selection of formula, and more are the several difficulties in the construction of index numbers. (b) **Based on sample items, so only approximate indicators:** Index numbers are generally based on a few sample items. So, the results derived are approximate and not perfect.	6

	(c) Ignores quality of commodities: These days the quality changes occur very fast and the index numbers ignore this aspect. So, the results shown by these may not be appropriate. **(d) Limited use:** There is no 'master index number' or 'all in one index number'. Use of each index number is restricted to its specific object. **(e) Useful only for short-term comparison:** Over a period of time, rapid changes occur in habits, tastes, preferences, and more. So, the index number constructed in the present may not be comparable with the one constructed a few years back.	