

2 0 1 8

( CBCS )

( 4th Semester )

**COMMERCE**

**( Entrepreneurship )**

*Full Marks : 75*

*Time : 3 hours*

**( PART : A—OBJECTIVE )**

*( Marks : 25 )*

*The figures in the margin indicate full marks for the questions*

SECTION—A

*( Marks : 10 )*

State whether the following statements are True (T) or False (F) by putting a Tick (✓) mark : 1×5=5

1. According to Joseph Schumpeter's definition, entrepreneur is the fourth factor of economy.

( T / F )

2. The reward for an entrepreneur is profit.

( T / F )

3. EDP is normally passed through three phases such as pre-training, post-training and commencement of business.

( T / F )

4. Shisu Loan under MUDRA is provided up to ₹ 50,000.

( T / F )

**5.** Factors governing women entrepreneurship are the constrains in economic domain.

( T / F )

Put a Tick (✓) mark against the correct answer in the brackets provided : 1×5=5

**6.** The process of entrepreneurship begins with

(a) self-discovery ( )

(b) planning ( )

(c) start-up ( )

(d) All of the above ( )

**7.** The external environment relates to

(a) fashion ( )

(b) law ( )

(c) politics ( )

(d) All of the above ( )

**8.** Idea generation, preparation, incubation, illumination and verification are essentially the five stages of

(a) product development process ( )

(b) idea generation stage ( )

(c) mapping new idea ( )

(d) None of the above ( )

**9.** The Indian Institute of Entrepreneurship in Guwahati was established in

(a) 1990 ( )

(b) 1991 ( )

(c) 1992 ( )

(d) 1993 ( )

**10.** The Government of India defined women entrepreneurship as an enterprise owned and controlled by a woman having a minimum financial interest of

(a) 49 per cent ( )

(b) 50 per cent ( )

(c) 51 per cent ( )

(d) 52 per cent ( )

SECTION—B

( Marks : 15 )

Write short notes on the following :

3×5=15

**1.** Entrepreneurs generate employment opportunities

**2.** IIE

**3.** Internal environment of a business

**4.** Intrapreneurs

**5.** Ultrapreneurs

**( PART : B—DESCRIPTIVE )**

( Marks : 50 )

*The figures in the margin indicate full marks for the questions*

1. Define entrepreneur. Explain briefly the characteristics and traits of an entrepreneur. 3+7=10

**OR**

Highlight the growth of entrepreneurship in the post-Independence period of India. 10

2. What is Entrepreneurship Development Programmes (EDPs)? Elaborate the importance of EDPs in economic development of a country. 3+7=10

**OR**

Write notes on the following : 5×2=10

(a) EDI (Entrepreneurship Development Institute)

(b) DICs (District Industries Centres)

3. What do you mean by business opportunity? Justify the necessity and significance of opportunity identification and selection. 5+5=10

**OR**

What are external and internal environments? Discuss the factors affecting external environmental analysis. 3+7=10

4. What are the salient features of the MSMED Act, 2006? 10

**OR**

Define Micro Units Development and Refinance Agency. What are the roles and functions of MUDRA? 3+7=10

5. What are the problems and prospects of women entrepreneurship in the North-East India? Write a brief history of a few successful women entrepreneurs and their achievements from the North-East India. 5+5=10

**OR**

Explain the incentives, subsidies and grants provided by the government for the development of MSME in the North-Eastern region of India. 10

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2 0 1 8

( CBCS )

( 4th Semester )

**COMMERCE**

**( Industrial and Company Law )**

*Full Marks : 75*

*Time : 3 hours*

**( PART : A—OBJECTIVE )**

*( Marks : 25 )*

*The figures in the margin indicate full marks for the questions*

SECTION—A

*( Marks : 10 )*

State whether the following statements are True (*T*) or False (*F*) by putting a Tick (✓) mark : 1×5=5

1. Notice of lock-out or strike is necessary when a strike or lock-out is already in existence.

( *T / F* )

2. The appropriate government shall review the minimum rates of wages at such intervals not exceeding two years.

( *T / F* )

3. Nominal capital is also known as authorized capital.

( *T / F* )

4. No person can be appointed managing director for a term exceeding 6 years at a time.

( T / F )

5. Contributors mean every person liable to contribute to the assets of a company on the event of its being wound up.

( T / F )

Fill in the blanks :

1×5=5

6. \_\_\_\_\_ is an unlooked for a mishap or untoward event which is not expected or designed.
7. No adult worker shall be required or allowed to work in a factory for more than \_\_\_\_\_ hours in any week.
8. A public company, having a share capital and issuing a prospectus, cannot commence business until the Registrar issues a certificate known as the \_\_\_\_\_.
9. \_\_\_\_\_ means the minimum number of members required to hold a meeting.
10. An act performed in a burdensome, harsh and wrongful manner is known as \_\_\_\_\_.

#### SECTION—B

( Marks : 15 )

Write short notes on the following (in not more than five sentences each):

3×5=15

1. Lay-off
2. Employment of young person
3. Articles of Association
4. Woman director
5. Resolution

**( PART : B—DESCRIPTIVE )**

( Marks : 50 )

*The figures in the margin indicate full marks for the questions*

UNIT—I

1. Discuss about commissioner's appeals under the Workmen's Compensation Act. 10

**OR**

What do you mean by industrial disputes? Discuss certain authorities for the investigation and settlement of industrial disputes under the Act. 3+7=10

UNIT—II

2. What is scheduled employment? Explain the enforcement of the Minimum Wages Act. 3+7=10

**OR**

Enumerate the provisions of the Factories Act regarding the welfare of the workers. 10

UNIT—III

3. Explain the different types of companies according to the recent amendments of the Indian Companies Act. 10

**OR**

Explain the following : 5+5=10

(a) Borrowing powers

(b) Mortgages

UNIT—IV

4. Explain the following : 5+5=10

(a) Whole-time director

(b) Criminal liability of director

**OR**

Explain different kinds of company meetings. 10

UNIT—V

5. Discuss the measures that can be adopted by the minority shareholders in case of oppression and mismanagement by majority shareholders. 10

**OR**

What do you mean by winding up? What are the rules applicable to a creditor's voluntary winding up? 3+7=10

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2 0 1 8

( CBCS )

( 4th Semester )

**COMMERCE**

**( Quantitative Techniques )**

*Full Marks : 75*

*Time : 3 hours*

**( PART : A—OBJECTIVE )**

( *Marks : 25* )

*The figures in the margin indicate full marks for the questions*

SECTION—A

( *Marks : 10* )

State whether the following statements are True (*T*) or False (*F*) by putting a Tick (✓) mark : 1×5=5

1. Statistics said to be both Science and Arts.

( *T / F* )

2. If two events are mutually exclusive, they must be independent events.

( *T / F* )

3. The reference period is not the period against which comparisons are made.

( *T / F* )

4. A square matrix in which every non-diagonal element is zero and all diagonal elements are equal, is known as scalar matrix.

( T / F )

5.  $\frac{d}{dx} e^x = xe^x$

( T / F )

Tick (✓) the correct answer in the brackets provided :

1×5=5

6. The geometric mean of two numbers 12 and 27 is

(a) 9 ( )

(b) 12 ( )

(c) 18 ( )

(d) 21 ( )

7. Probable error of correlation coefficient is

(a) 0.6745SE ( )

(b) 0.6457SE ( )

(c) 0.6754SE ( )

(d) 0.7645SE ( )

8. In the least square linear trend equation  $Y = a + bX$ , if  $b$  is negative, it indicates

(a) rising trend ( )

(b) declining trend ( )

(c) trend is zero ( )

(d) None of the above ( )

9. If two rows or columns of a determinant are identical, then the value is

(a) ( )

(b)  $\frac{1}{}$  ( )

(c) 1 ( )

(d) 0 ( )

10.  $dx$  is equal to

(a) 1 ( )

(b)  $x$  ( )

(c) 0 ( )

(d)  $\frac{1}{x}$  ( )

SECTION—B

( Marks : 15 )

Write notes on/Answer the following in not more than 6 sentences each (wherever applicable) :

3×5=15

1. Tally marks

2. Equally likely events

3. Time reversal test

4. If  $A = \begin{pmatrix} 3 & 2 \\ 4 & 1 \end{pmatrix}$  and  $B = \begin{pmatrix} a & b \\ 3 & 5 \end{pmatrix}$ , find  $a$  and  $b$ .

5. Integrate  $\frac{1}{1-x} dx$ .

( PART : B—DESCRIPTIVE )

( Marks : 50 )

The figures in the margin indicate full marks for the questions

Answer **one** question from each Unit

UNIT—I

1. What is statistics? Describe in brief the relationship of statistics with business and commerce. 4+6=10
2. (a) From the following data, calculate  $f_4$  and  $f_6$ , when its total number of frequencies was 150 and the median was 146.25 : 6

<i>Class interval</i>	100–110	110–120	120–130	130–140	140–150
<i>Frequencies</i>	4	7	15	$f_4$	40
<i>Class interval</i>	150–160	160–170	170–180	180–190	190–200
<i>Frequencies</i>	$f_6$	16	10	6	3

- (b) What are the properties of standard deviation? 4

UNIT—II

3. (a) State the addition and multiplication theorems of probability with two different examples of these two. 2+2=4
- (b) A can hit a target 3 times in 5 shots, B can hit 2 times in 5 shots and C can hit 3 times in 4 shots. They fire a volley. What is the probability of hitting 2 shots? 6
4. (a) What is correlation? How is it different from regression? 2+3=5
- (b) Find out the rank correlation coefficient from the following observations : 5

A	115	109	112	87	98	109	120	100	98	118
B	75	73	85	70	76	65	82	73	68	80

UNIT—III

5. (a) What is Consumer's Price Index? What are the uses of it? 2+3=5
- (b) From the following data, construct quantity index numbers by Fisher's Ideal Index method and Edgeworth-Marshall method : 5

<i>Commodity</i>	<i>Base year</i>		<i>Current year</i>	
	<i>Price (in ₹)</i>	<i>Quantity (in kg)</i>	<i>Expenses (in ₹)</i>	<i>Quantity (in kg)</i>
<i>A</i>	25	40	2,000	50
<i>B</i>	22	18	1,200	30
<i>C</i>	54	16	1,320	44
<i>D</i>	20	40	1,350	45
<i>E</i>	18	30	630	15

6. (a) What is secular trend? How is it different from seasonal variations? 2+3=5
- (b) Eliminate trend by Moving Average Method from the following observations : 5

<i>Years</i>	<i>1st quarter</i>	<i>2nd quarter</i>	<i>3rd quarter</i>	<i>4th quarter</i>
2015	40	35	38	40
2016	42	37	39	38
2017	41	35	38	42

UNIT—IV

7. (a) Describe in detail about minor and cofactors with suitable examples for these two. 2+2=4

- (b) A firm produces three products A, B and C, which it sells in two markets. Annual sales in units are given below :

Markets	Products sold (in units)		
	A	B	C
I	8000	4000	16000
II	7000	18000	9000

If the prices per unit of A, B and C are ₹ 2.50, ₹ 1.25 and ₹ 1.50 respectively and the costs per unit are ₹ 1.70, ₹ 1.20 and ₹ 0.80 respectively, find the profit in each market by using matrix algebra. 6

8. (a) Describe any four properties of determinant. 4

- (b) A salesman has the following records of sales during three months for three items A, B and C which have different rates of commission. Find out the rates of commission on items A, B and C by determinant method from the following table : 6

Months	Sales (in units)			Total commission received (in ₹)
	A	B	C	
January	90	100	20	800
February	130	50	40	900
March	60	100	30	850

#### UNIT—V

9. (a) Find  $\frac{dy}{dx}$ , if  $e^x y = xy$ . 4

- (b) A company has for  $x$  items produce, the total cost  $C$  and the total revenue  $R$  given by equations  $R = 3x$  and  $C = 100 + 0.015x^2$ . Find how many items be produced to maximize profit. What is the maximum profit? 5+1=6

10. (a) Evaluate the following integrals :

3+3=6

(i)  $\int \frac{x}{2x^2 - 1} dx$

(ii)  $\int_2^1 (3x^2 - x - 1) dx$

(b) A manufacturer's marginal cost function is  $MC = 0.2x - 3$ . If  $C$  is in rupees, determine the cost involved to increase the production from 60 to 70.

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**2 0 1 8**

( Pre-CBCS )

( 4th Semester )

**COMMERCE**

**( Entrepreneurship )**

*Full Marks : 50*

*Time : 2 hours*

**( PART : A—OBJECTIVE )**

( *Marks : 15* )

*The figures in the margin indicate full marks for the questions*

SECTION—A

( *Marks : 5* )

Tick (✓) the correct answer in the brackets provided :

1×5=5

**1.** An entrepreneur who does not innovate themselves, but adopt techniques and technology innovated by others is

(a) innovative entrepreneur ( )

(b) imitative entrepreneur ( )

(c) Fabian entrepreneur ( )

(d) drone entrepreneur ( )



- 2.** The Indian Institute of Entrepreneurship (IIE) was established in
- (a) 1991 ( )
  - (b) 1992 ( )
  - (c) 1993 ( )
  - (d) 1994 ( )
- 3.** The environment of business which is composed of various organizations, institutions and forces operating outside the business is called
- (a) external environment ( )
  - (b) internal environment ( )
  - (c) controllable environment ( )
  - (d) All of the above ( )
- 4.** According to the MSMED Act, 2006, manufacturing small enterprise is the enterprise whose investment in plant and machinery is
- (a) more than ₹ 5 lakh but does not exceed ₹ 10 crore ( )
  - (b) more than ₹ 10 lakh but does not exceed ₹ 25 crore ( )
  - (c) more than ₹ 25 lakh but does not exceed ₹ 50 lakh ( )
  - (d) more than ₹ 25 lakh but does not exceed ₹ 5 crore ( )
- 5.** The Government of India announced the North-East Industrial and Investment Promotion Policy in the year
- (a) 1997 ( )
  - (b) 2000 ( )
  - (c) 2003 ( )
  - (d) 2007 ( )

SECTION—B

( Marks : 10 )

Write short notes on the following :

2×5=10

1. Features of entrepreneurship
2. Indian Institute of Entrepreneurship
3. External environment of business
4. Medium enterprise as per MSMED Act
5. Problems of entrepreneurship in North-East

( PART : B—DESCRIPTIVE )

( Marks : 35 )

*The figures in the margin indicate full marks for the questions*

Answer **any one** from each Unit

Unit—I

1. Discuss in detail about the functions of an entrepreneur. 7
2. How does entrepreneurship help to bring balanced regional development? 7

Unit—II

3. Explain how EDPs are relevant to bring entrepreneurial growth in India. 7
4. Write in detail about the functions of DICs for entrepreneurship development in a district. 7

### Unit—III

5. Identify and discuss the opportunities are available in the environment to undertake a new venture. 7
6. Briefly discuss about the economic factors which are very often effects the entrepreneurship. 7

### Unit—IV

7. What are the potential legal steps require to take for setting up a small-scale industry (SSI)? Describe in detail about the aims of venture capital. 4+3=7
8. Write short notes on the following : 3½×2=7
- (a) Lease financing
- (b) Venture capital

### Unit—V

9. Write in detail about the prospects of entrepreneurship in North-East India. 7
10. What incentives are offered for micro, small and medium enterprises (MSME) in North-East India? 7

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2 0 1 8

( Pre-CBCS )

( 4th Semester )

**COMMERCE**

**( Industrial and Company Law )**

*Full Marks : 75*

*Time : 3 hours*

**( PART : A—OBJECTIVE )**

( Marks : 25 )

*The figures in the margin indicate full marks for the questions*

SECTION—A

( Marks : 10 )

Tick (✓) the correct answer in the brackets provided :

1×10=10

1. Section 2(1)(d) of the Employees Compensation Act, 1923 defines dependant as to mean any of the following relatives of a deceased employee :

- (a) A widow ( )
- (b) A minor legitimate son ( )
- (c) An unmarried daughter ( )
- (d) All of the above ( )

2. Industrial dispute means any dispute or difference between \_\_\_\_\_ connected with employment or non-employment or the terms of employment or with the connections of labour, of any persons.

- (a) employers and employers ( )
- (b) employers and workmen ( )
- (c) workmen and workmen ( )
- (d) All of the above ( )

- 3.** \_\_\_\_\_ shall fix the minimum rates of wages payable to employees employed in a scheduled employment.
- (a) The appropriate Government ( )
  - (b) The State Government ( )
  - (c) The Central Government ( )
  - (d) The employer ( )
- 4.** As per the Factories Act, 1948, young person means a person who is
- (a) a child ( )
  - (b) an adolescent ( )
  - (c) Either (a) or (b) ( )
  - (d) Neither (a) nor (b) ( )
- 5.** \_\_\_\_\_ contains rules, regulations and bye-laws regarding the internal management of companies.
- (a) Memorandum of Association ( )
  - (b) Articles of Association ( )
  - (c) Prospectus ( )
  - (d) Certificate of Incorporation ( )
- 6.** The total face value of the shares which the company is authorised to issue by its Memorandum of Association is
- (a) nominal capital ( )
  - (b) issued capital ( )
  - (c) subscribed capital ( )
  - (d) paid up capital ( )
- 7.** The Directors of a Company are selected according to the \_\_\_\_\_ and provisions of the Companies Act.
- (a) memorandum of association ( )
  - (b) articles of association ( )
  - (c) prospectus ( )
  - (d) certificate of incorporation ( )

- 8.** The quorum for a meeting of the Board of Directors of a Company shall be
- (a) one-third ( )
  - (b) one-half ( )
  - (c) two-third ( )
  - (d) None of the above ( )
- 9.** The Company Law Board is empowered to end oppression of minority and to prevent mismanagement and has the power to
- (a) regulate the conduct of company's affair in future ( )
  - (b) purchase shares and interests of any members of the company ( )
  - (c) reduce share capital if the company purchases shares ( )
  - (d) All of the above ( )
- 10.** An application for the winding up of a company can be made to the court by
- (a) the company ( )
  - (b) any creditor or creditors ( )
  - (c) the registrar ( )
  - (d) All of the above ( )

SECTION—B

( Marks : 15 )

Write short notes on the following :

3×5=15

1. Employer
2. Provision of washing facilities regarding the welfare of workers
3. Mortgage
4. Minutes
5. Oppression

( PART : B—DESCRIPTIVE )

( Marks : 50 )

*The figures in the margin indicate full marks for the questions*

Answer *any one* question from each Unit

Unit—I

1. Explain briefly employer's liability for compensation as per the Employees Compensation Act, 1923. 10
2. Describe briefly the authorities provided in the Act for adjudication of industrial disputes. 10

Unit—II

3. Discuss the salient features of the Minimum Wages Act of 1948. 10
4. Briefly enumerate provisions of the Factories Act, 1948 ensuring health of the workers in a factory. 10

Unit—III

5. Who is a promoter? Write a note on the liabilities of promoters. 3+7=10
6. What is share? Compare preference shares with equity shares. 2+8=10

Unit—IV

7. Explain the rights and duties of Director. 10
8. Explain the following : 5+5=10
  - (a) Resolutions
  - (b) Quorum for meetings

Unit—V

9. Explain clearly the meaning of majority powers and minority rights. 5+5=10
10. What are the modes of winding up? Discuss the circumstances in which a company may be wound up by the court. 2+8=10

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2 0 1 8

( Pre-CBCS )

( 4th Semester )

**COMMERCE****( Quantitative Technique )***Full Marks : 75**Time : 3 hours***( PART : A—OBJECTIVE )***( Marks : 25 )**The figures in the margin indicate full marks for the questions*

SECTION—A

*( Marks : 10 )*

Indicate whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark in the brackets provided : 1×5=5

1. The median is also called positional average.

*( T / F )*

2. When there is either perfect positive or perfect negative correlation between the two variables the regression lines will coincide.

*( T / F )*

3. Index numbers are very useful in deflating.

*( T / F )*

4. 
$$\begin{matrix} 0 & h & g \\ h & 0 & f \\ g & f & 0 \end{matrix}$$
 is a symmetric matrix.

*( T / F )*

5. A function is a technical term used to symbolize relationship between variables.

*( T / F )*



Tick (✓) the correct answer in the brackets provided :

1×5=5

6. \_\_\_\_\_ is theoretically considered to be the best averages in the construction of index numbers.
- (a) Geometric mean ( )
  - (b) Harmonic mean ( )
  - (c) Arithmetic mean ( )
  - (d) Mode ( )
7. \_\_\_\_\_ are those events in which the outcome of one does not affect and is not affected by the other.
- (a) Dependent events ( )
  - (b) Independent events ( )
  - (c) Simple events ( )
  - (d) Compound events ( )
8. Time-reversal test is satisfied if
- (a)  $P_{01} = P_{10} = 1$  ( )
  - (b)  $P_{01} = Q_{01} = 1$  ( )
  - (c)  $P_{01} = P_{10} = 1$  ( )
  - (d)  $P_{10} = Q_{01} = 1$  ( )
9. The matrix which is obtained after deleting any one row and any one column of a matrix is known as
- (a) submatrix ( )
  - (b) minor of a determinant ( )
  - (c) adjoint of a matrix ( )
  - (d) row and column matrices ( )
10. By differentiating  $t^8$ , we get
- (a)  $8t^7$  ( )
  - (b)  $8t^8$  ( )
  - (c)  $8t^9$  ( )
  - (d)  $8t^{10}$  ( )

SECTION—B

( Marks : 15 )

Write notes on the following :

3×5=15

1. Properties of a good measure of dispersion
2. Coefficient of determination
3. Importance of time series analysis
4. Equality of matrices
5. Integration as an antiderivative

( PART : B—DESCRIPTIVE )

( Marks : 50 )

*The figures in the margin indicate full marks for the questions*

Answer *any one* question from each Unit

Unit—I

1. (a) What do you mean by 'statistics'? Explain in brief how inferential statistics differ from descriptive statistics. 2+3=5  
(b) Discuss the limitations of statistics. 5
2. (a) During a period of decline in stock market prices, a stock sold at ₹ 50 per share on one day, ₹ 40 on the next day and ₹ 25 on the third day.  
(i) If an investor bought 100, 120 and 180 shares on the respective three days, find the average price paid per share.  
(ii) If the investor bought ₹ 1,000 worth of shares on each of the three days, find the average price paid per share. 2+2=4

(b) Goals scored by two teams in a football session were as follows :

<i>No. of goals scored</i>	<i>No. of matches played</i>	
	<i>Team A</i>	<i>Team B</i>
0	15	20
1	10	10
2	7	5
3	5	4
4	3	2
5	2	1
<i>Total</i>	42	42

Calculate coefficient of variation and state which team is more consistent.

6

### Unit—II

3. (a) If three persons on the street were selected at random, what are the probabilities that—

(i) all were born on Saturday;

(ii) two were born on Saturday and the other on Monday;

(iii) none were born on Sunday?

1+3+1=5

(b) Problems in accounting is given to five students  $P, Q, R, S$  and  $T$ . Their chances of solving the problems are  $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}$  and  $\frac{1}{6}$ . What is the probability that the problem will be solved?

5

4. (a) Highlight the differences between correlation and regression analysis.

4

(b) Calculate Karl Pearson's coefficient of correlation from the following data :

6

$X$	:	6	2	10	4	8
$Y$	:	9	11	?	8	7

Arithmetic mean of  $X$  and  $Y$  series are 6 and 8 respectively.

### Unit—III

5. (a) What do you mean by consumer price index? Highlight the method of constructing the consumer price index.

2+3=5

- (b) The following figures relate to the prices and quantities of certain commodities :

Commodity	2017		2018	
	Price/kg	Quantity	Price/kg	Quantity
A	78	7	85	10
B	69	5	80	5
C	62	4	72	6

Construct Fisher ideal index and show that it satisfies factor-reversal test. 5

6. (a) Describe the components of a time series. 5

- (b) The level of working capital needed by a firm during the last six years are as follows :

Year : 2005 2006 2007 2008 2009 2010

Working Capital

(₹ in lakh) : 5.10 5.85 6.35 6.65 7.10 7.35

Fit a straight line trend and estimate the level of working capital required during the year 2010. 5

#### Unit—IV

7. (a) If

$$A = \begin{pmatrix} 9 & 1 \\ 4 & 3 \end{pmatrix} \text{ and } B = \begin{pmatrix} 1 & 5 \\ 7 & 12 \end{pmatrix}$$

then find the matrix  $X$  such that  $3A - 5B - 2X = 0$ . 3

- (b) Solve the following equations using Cramer's rule : 7

$$2x + y + z = 3$$

$$x + y + z = 1$$

$$x + 2y + 3z = 4$$

8. (a) Dawngi went to a market to purchase 3 kg of sugar, 10 kg of rice and 1 kg of salt. In a shop near to her residence, these commodities are priced at ₹ 20, ₹ 10 and ₹ 8 per kg whereas in the local market these commodities are priced at ₹ 15, ₹ 8 and ₹ 6 per kg respectively. If the cost of travelling to local market is ₹ 25, find the net savings of Dawngi using matrix notations. 4

(b) Compute the inverse of a matrix if

$$A = \begin{pmatrix} 1 & 0 & 4 \\ 2 & 2 & 5 \\ 3 & 1 & 2 \end{pmatrix}$$

6

### Unit—V

9. (a) Show that

$\lim_{x \rightarrow 1} f(x)$   
exists and is equal to  $f(1)$ , where

$$f(x) = x - 1 \text{ for } x < 1$$

$$f(x) = 3 - x^2 \text{ for } x > 1$$

3

(b) Differentiate w.r.t.  $x$   $\frac{(x-1)(2x-1)}{(x-3)}$ .

3

(c) Investigate the maxima and minima of the function

$$2x^3 - 3x^2 - 36x + 10 = 0$$

4

10. (a) Evaluate  $\int \log x \, dx$ .

3

(b) The marginal cost function of producing  $x$  units of a product is given by

$$MC = \frac{x}{\sqrt{x^2 + 2500}}$$

Find the total cost function and the average cost function if the fixed cost is ₹ 1,000.

7

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**2 0 1 8**

( Pre-CBCS )

( 4th Semester )

**COMMERCE**

**( Entrepreneurship )**

*Full Marks : 50*

*Time : 2 hours*

**( PART : A—OBJECTIVE )**

*( Marks : 15 )*

*The figures in the margin indicate full marks for the questions*

SECTION—A

*( Marks : 5 )*

Tick (✓) the correct answer in the brackets provided :

1×5=5

**1.** An entrepreneur who does not innovate themselves, but adopt techniques and technology innovated by others is

(a) innovative entrepreneur ( )

(b) imitative entrepreneur ( )

(c) Fabian entrepreneur ( )

(d) drone entrepreneur ( )

- 2.** The Indian Institute of Entrepreneurship (IIE) was established in
- (a) 1991 ( )
  - (b) 1992 ( )
  - (c) 1993 ( )
  - (d) 1994 ( )
- 3.** The environment of business which is composed of various organizations, institutions and forces operating outside the business is called
- (a) external environment ( )
  - (b) internal environment ( )
  - (c) controllable environment ( )
  - (d) All of the above ( )
- 4.** According to the MSMED Act, 2006, manufacturing small enterprise is the enterprise whose investment in plant and machinery is
- (a) more than ₹ 5 lakh but does not exceed ₹ 10 crore ( )
  - (b) more than ₹ 10 lakh but does not exceed ₹ 25 crore ( )
  - (c) more than ₹ 25 lakh but does not exceed ₹ 50 lakh ( )
  - (d) more than ₹ 25 lakh but does not exceed ₹ 5 crore ( )
- 5.** The Government of India announced the North-East Industrial and Investment Promotion Policy in the year
- (a) 1997 ( )
  - (b) 2000 ( )
  - (c) 2003 ( )
  - (d) 2007 ( )

SECTION—B

( Marks : 10 )

Write short notes on the following :

2×5=10

1. Features of entrepreneurship
2. Indian Institute of Entrepreneurship
3. External environment of business
4. Medium enterprise as per MSMED Act
5. Problems of entrepreneurship in North-East

( PART : B—DESCRIPTIVE )

( Marks : 35 )

*The figures in the margin indicate full marks for the questions*

Answer **any one** from each Unit

Unit—I

1. Discuss in detail about the functions of an entrepreneur. 7
2. How does entrepreneurship help to bring balanced regional development? 7

Unit—II

3. Explain how EDPs are relevant to bring entrepreneurial growth in India. 7
4. Write in detail about the functions of DICs for entrepreneurship development in a district. 7



### Unit—III

5. Identify and discuss the opportunities are available in the environment to undertake a new venture. 7
6. Briefly discuss about the economic factors which are very often effects the entrepreneurship. 7

### Unit—IV

7. What are the potential legal steps require to take for setting up a small-scale industry (SSI)? Describe in detail about the aims of venture capital. 4+3=7
8. Write short notes on the following : 3½×2=7
- (a) Lease financing
- (b) Venture capital

### Unit—V

9. Write in detail about the prospects of entrepreneurship in North-East India. 7
10. What incentives are offered for micro, small and medium enterprises (MSME) in North-East India? 7

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( Pre-CBCS )

( 4th Semester )

**COMMERCE**

**( Industrial and Company Law )**

*Full Marks : 75*

*Time : 3 hours*

**( PART : A—OBJECTIVE )**

( Marks : 25 )

*The figures in the margin indicate full marks for the questions*

SECTION—A

( Marks : 10 )

Tick (✓) the correct answer in the brackets provided :

1×10=10

1. Section 2(1)(d) of the Employees Compensation Act, 1923 defines dependant as to mean any of the following relatives of a deceased employee :

- (a) A widow ( )
- (b) A minor legitimate son ( )
- (c) An unmarried daughter ( )
- (d) All of the above ( )

2. Industrial dispute means any dispute or difference between \_\_\_\_\_ connected with employment or non-employment or the terms of employment or with the connections of labour, of any persons.

- (a) employers and employers ( )
- (b) employers and workmen ( )
- (c) workmen and workmen ( )
- (d) All of the above ( )

- 3.** \_\_\_\_\_ shall fix the minimum rates of wages payable to employees employed in a scheduled employment.
- (a) The appropriate Government ( )
  - (b) The State Government ( )
  - (c) The Central Government ( )
  - (d) The employer ( )
- 4.** As per the Factories Act, 1948, young person means a person who is
- (a) a child ( )
  - (b) an adolescent ( )
  - (c) Either (a) or (b) ( )
  - (d) Neither (a) nor (b) ( )
- 5.** \_\_\_\_\_ contains rules, regulations and bye-laws regarding the internal management of companies.
- (a) Memorandum of Association ( )
  - (b) Articles of Association ( )
  - (c) Prospectus ( )
  - (d) Certificate of Incorporation ( )
- 6.** The total face value of the shares which the company is authorised to issue by its Memorandum of Association is
- (a) nominal capital ( )
  - (b) issued capital ( )
  - (c) subscribed capital ( )
  - (d) paid up capital ( )
- 7.** The Directors of a Company are selected according to the \_\_\_\_\_ and provisions of the Companies Act.
- (a) memorandum of association ( )
  - (b) articles of association ( )
  - (c) prospectus ( )
  - (d) certificate of incorporation ( )

- 8.** The quorum for a meeting of the Board of Directors of a Company shall be
- (a) one-third ( )
  - (b) one-half ( )
  - (c) two-third ( )
  - (d) None of the above ( )
- 9.** The Company Law Board is empowered to end oppression of minority and to prevent mismanagement and has the power to
- (a) regulate the conduct of company's affair in future ( )
  - (b) purchase shares and interests of any members of the company ( )
  - (c) reduce share capital if the company purchases shares ( )
  - (d) All of the above ( )
- 10.** An application for the winding up of a company can be made to the court by
- (a) the company ( )
  - (b) any creditor or creditors ( )
  - (c) the registrar ( )
  - (d) All of the above ( )

SECTION—B

( Marks : 15 )

Write short notes on the following :

3×5=15

1. Employer
2. Provision of washing facilities regarding the welfare of workers
3. Mortgage
4. Minutes
5. Oppression

( PART : B—DESCRIPTIVE )

( Marks : 50 )

*The figures in the margin indicate full marks for the questions*

Answer *any one* question from each Unit

Unit—I

1. Explain briefly employer's liability for compensation as per the Employees Compensation Act, 1923. 10
2. Describe briefly the authorities provided in the Act for adjudication of industrial disputes. 10

Unit—II

3. Discuss the salient features of the Minimum Wages Act of 1948. 10
4. Briefly enumerate provisions of the Factories Act, 1948 ensuring health of the workers in a factory. 10

Unit—III

5. Who is a promoter? Write a note on the liabilities of promoters. 3+7=10
6. What is share? Compare preference shares with equity shares. 2+8=10

Unit—IV

7. Explain the rights and duties of Director. 10
8. Explain the following : 5+5=10
  - (a) Resolutions
  - (b) Quorum for meetings

Unit—V

9. Explain clearly the meaning of majority powers and minority rights. 5+5=10
10. What are the modes of winding up? Discuss the circumstances in which a company may be wound up by the court. 2+8=10

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( Pre-CBCS )

( 4th Semester )

**COMMERCE****( Quantitative Technique )***Full Marks : 75**Time : 3 hours***( PART : A—OBJECTIVE )**

( Marks : 25 )

*The figures in the margin indicate full marks for the questions*

SECTION—A

( Marks : 10 )

Indicate whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark in the brackets provided : 1×5=5

1. The median is also called positional average.

( T / F )

2. When there is either perfect positive or perfect negative correlation between the two variables the regression lines will coincide.

( T / F )

3. Index numbers are very useful in deflating.

( T / F )

4. 
$$\begin{matrix} 0 & h & g \\ h & 0 & f \\ g & f & 0 \end{matrix}$$
 is a symmetric matrix.

( T / F )

5. A function is a technical term used to symbolize relationship between variables.

( T / F )

Tick (✓) the correct answer in the brackets provided :

1×5=5

6. \_\_\_\_\_ is theoretically considered to be the best averages in the construction of index numbers.
- (a) Geometric mean ( )
  - (b) Harmonic mean ( )
  - (c) Arithmetic mean ( )
  - (d) Mode ( )
7. \_\_\_\_\_ are those events in which the outcome of one does not affect and is not affected by the other.
- (a) Dependent events ( )
  - (b) Independent events ( )
  - (c) Simple events ( )
  - (d) Compound events ( )
8. Time-reversal test is satisfied if
- (a)  $P_{01} = P_{10} = 1$  ( )
  - (b)  $P_{01} = Q_{01} = 1$  ( )
  - (c)  $P_{01} = P_{10} = 1$  ( )
  - (d)  $P_{10} = Q_{01} = 1$  ( )
9. The matrix which is obtained after deleting any one row and any one column of a matrix is known as
- (a) submatrix ( )
  - (b) minor of a determinant ( )
  - (c) adjoin of a matrix ( )
  - (d) row and column matrices ( )
10. By differentiating  $t^8$ , we get
- (a)  $8t^7$  ( )
  - (b)  $8t^8$  ( )
  - (c)  $8t^9$  ( )
  - (d)  $8t^{10}$  ( )

SECTION—B

( Marks : 15 )

Write notes on the following :

3×5=15

1. Properties of a good measure of dispersion
2. Coefficient of determination
3. Importance of time series analysis
4. Equality of matrices
5. Integration as an antiderivative

( PART : B—DESCRIPTIVE )

( Marks : 50 )

*The figures in the margin indicate full marks for the questions*

Answer *any one* question from each Unit

Unit—I

1. (a) What do you mean by 'statistics'? Explain in brief how inferential statistics differ from descriptive statistics. 2+3=5  
(b) Discuss the limitations of statistics. 5
2. (a) During a period of decline in stock market prices, a stock sold at ₹ 50 per share on one day, ₹ 40 on the next day and ₹ 25 on the third day.  
(i) If an investor bought 100, 120 and 180 shares on the respective three days, find the average price paid per share.  
(ii) If the investor bought ₹ 1,000 worth of shares on each of the three days, find the average price paid per share. 2+2=4



(b) Goals scored by two teams in a football session were as follows :

<i>No. of goals scored</i>	<i>No. of matches played</i>	
	<i>Team A</i>	<i>Team B</i>
0	15	20
1	10	10
2	7	5
3	5	4
4	3	2
5	2	1
<i>Total</i>	42	42

Calculate coefficient of variation and state which team is more consistent.

6

### Unit—II

3. (a) If three persons on the street were selected at random, what are the probabilities that—

(i) all were born on Saturday;

(ii) two were born on Saturday and the other on Monday;

(iii) none were born on Sunday?

1+3+1=5

(b) Problems in accounting is given to five students  $P, Q, R, S$  and  $T$ . Their chances of solving the problems are  $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}$  and  $\frac{1}{6}$ . What is the probability that the problem will be solved?

5

4. (a) Highlight the differences between correlation and regression analysis.

4

(b) Calculate Karl Pearson's coefficient of correlation from the following data :

6

$X$	:	6	2	10	4	8
$Y$	:	9	11	?	8	7

Arithmetic mean of  $X$  and  $Y$  series are 6 and 8 respectively.

### Unit—III

5. (a) What do you mean by consumer price index? Highlight the method of constructing the consumer price index.

2+3=5

- (b) The following figures relate to the prices and quantities of certain commodities :

Commodity	2017		2018	
	Price/kg	Quantity	Price/kg	Quantity
A	78	7	85	10
B	69	5	80	5
C	62	4	72	6

Construct Fisher ideal index and show that it satisfies factor-reversal test. 5

6. (a) Describe the components of a time series. 5

- (b) The level of working capital needed by a firm during the last six years are as follows :

Year : 2005 2006 2007 2008 2009 2010

Working Capital

(₹ in lakh) : 5.10 5.85 6.35 6.65 7.10 7.35

Fit a straight line trend and estimate the level of working capital required during the year 2010. 5

#### Unit—IV

7. (a) If

$$A = \begin{pmatrix} 9 & 1 \\ 4 & 3 \end{pmatrix} \text{ and } B = \begin{pmatrix} 1 & 5 \\ 7 & 12 \end{pmatrix}$$

then find the matrix  $X$  such that  $3A - 5B - 2X = 0$ . 3

- (b) Solve the following equations using Cramer's rule : 7

$$2x + y + z = 3$$

$$x + y + z = 1$$

$$x + 2y + 3z = 4$$

8. (a) Dawngi went to a market to purchase 3 kg of sugar, 10 kg of rice and 1 kg of salt. In a shop near to her residence, these commodities are priced at ₹ 20, ₹ 10 and ₹ 8 per kg whereas in the local market these commodities are priced at ₹ 15, ₹ 8 and ₹ 6 per kg respectively. If the cost of travelling to local market is ₹ 25, find the net savings of Dawngi using matrix notations. 4

(b) Compute the inverse of a matrix if

$$A = \begin{pmatrix} 1 & 0 & 4 \\ 2 & 2 & 5 \\ 3 & 1 & 2 \end{pmatrix}$$

6

### Unit—V

9. (a) Show that

$\lim_{x \rightarrow 1} f(x)$   
exists and is equal to  $f(1)$ , where

$$f(x) = x + 1 \text{ for } x < 1$$

$$f(x) = 3 - x^2 \text{ for } x > 1$$

3

(b) Differentiate w.r.t.  $x$   $\frac{(x-1)(2x-1)}{(x-3)}$ .

3

(c) Investigate the maxima and minima of the function

$$2x^3 - 3x^2 - 36x + 10 = 0$$

4

10. (a) Evaluate  $\int \log x \, dx$ .

3

(b) The marginal cost function of producing  $x$  units of a product is given by

$$MC = \frac{x}{\sqrt{x^2 + 2500}}$$

Find the total cost function and the average cost function if the fixed cost is ₹ 1,000.

7

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