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## B.Com SEM I

 18-19
## Question Papers

# B. Com Semester End Examination 

Title of the paper: Micro Economies
Semester: I

## Duration: 2 Hrs.

Max Marks: 80

## Instructions

1) All questions are compulsory.
2) Question 1 and 2 answer any four out of six short notes.
3) Question number 3, 4, 5 and 6 answer a or b.
Q. 1) Write short notes on any four of the following:
(4 Marks each)
a) Cross Elasticity of Demand
b) Marginal Revenue and Total Revenue
c) 4 determinants of Supply
d) Marginal Rate of Technical Substitution
e) Implicit and Explicit Cost
f) Demand Function
Q. 2) Write short notes on any four of the following:
(4 Marks each)
a) Conditions for equilibrium under Perfect competition
b) Prisoners Dilemma
c) 4 features of Monopoly
d) Super Normal profit under perfect competition
e) Cartels in Oligopoly
.f) Producers Surplus
Q. 3) a) Explain the various determinants of Market Demand (12 Marks)

OR

Q. 3) b) Diagrammatically explain the Price Elasticity of demand.
Q. 4) a) What are Isoquants. Explain its characteristics diagrammatically'?

## OR

Q. 4) b) Explain different Short Run and Long Run Cost Curves.
Q. 5) a) Explain the Long Run equilibrium of Industry under Perfect Competition to determine

- price and output.
(12 Marks)
OR
Q. 5) b) Explain the Short Run and Long Run equilibrium under Monopoly to determine price and output.
Q. 6) a) Explain the features of Oligopoly Market.
(12 Marks)
OR
Q. 6) b) Explain the features of Monopolistic Competition

Total No of Questions: 4

Total No: of pages:
2

## B.Com Semester End Examination

ENVIRONMENTAL STUDIES

## Semester:I

Duration: 1.30 Hrs.

## Instructions: 1. All questions are compulsory <br> 2. Figures to the right indicates marks

Q.1.A Answer any FIVE of the followings
a. Write any two factors that affects the forest resources.
b. When did environmental audit was made compulsory?
c. Write any one point of difference between Potential resource and Endowment.
d. How many wet lands are left in India.
e. Name the sources of fresh water resource.
f. Name two hot spots of biodiversity present in the India.
g. Name different types of ecological succession.
Q.1.B Answer any FIVE of the followings
a. Name the grassland with scattered number of trees.
b. Name any tiger reserve present in India
c. Name any two dynamic nature of resources
d. How Time is considered to be as dynamic nature of resource.
e. State any two direct use of forest.
f. Explain the term Environment.
g. Name the other term for desert plants.

Q2A. What is the use of botanical gardens and how many Botanical gardens are there in India. (2)
Q2B. Summarise the objectives of Environmental education?
Q2C. With reference to the desert ecosystem, discuss features, functions and threats.
OR

Q2D. Correlate over exploitation of food resource over degradation of environment

Q3A. Mention any four steps of creating environmental awareness.
Q3B. Discuss the different types of Ecological pyramids
Q3C. Write a short note on Conservation of Bio diversity OR
Q3D. Illustrate on term water wars with suitable case studies.(min 2 case studies)
Q4A. List individual role in conservation of biodiversity.(any four points)
Q4B. Illustrate on values of biodiversity.
Q4C. Write a elaborate note on Estuarine ecosystem
OR
Q4D. Write a shon note on future scope of energy resource.
$\qquad$

## Duration: 02 Hrs.



## Instructions:-

1. All questions are compulsory, however internal choice is available.
2. Answer sub-questions, Question No. 1 \& Question No. 2 in not more thanl 100 words calch.
3. Answer questions, from Question No. 3 to Question No. 6 each in not more than 400 words.
4. Figures to the right indicate full marks allotted to each question.
5. Start each new question on a fresh page.
6. Provide sufficient margin space in the answer book for recording marks
7. Enter the appropriate main \& sub-question numbers in the answer-book.
Q. 1 Answer the following (ANY FOUR)
a) Importance of risk management (Any four points)
b) Dutics of IRD $\wedge$ (Any four points)
c) Objectives of IRDA (Any four points)
d) Role of insurance in economic develepment (Any four points)
c) Pradhan mantri jeevan jyoli yojana
1) Objectives of life insurance (Any four points)

## Q. 2 Answer the following (aNY FOUR)

a) Rider-benefits
b) Features of marine insurance
c) Need of moter vehicle insurance
d) Difference between life insurance \&e general insurance ( Any fomp poims)
e) Public liability insurance
f) Fidelity insurance
Q.3X) Explain the various methods of handling risk.

Y) What is risk management? Explain its principles.

Y) Iixplain the varions lypes af life insumate policies.
Q.6 X) What is fire insurance'? Iixplain the various types of lire insurance policies. ()及
Y) What is general insurance? I樟lain its need
Y) Whatisgco ****


Duration: 02 IIrs.

## Semester l

## Maximmm Marks: 80 Marks

 Instructions: 1) Question No. I is Compulsory2) Q. No. 2 to Q. No. 6 amsurer any three Question.
3) Fisures to the right indicule mavimum murkis allonlerl.
4) Provide sufficiont marsin space in the answer-hooli for recoralien: Imerhs.

Q1. Suresh bought a plant on $1^{\text {st }}$ January 2() 14 for the sum of Rs. $1,(0),(0)()$ having a useful I ile of 5 years. It is estimated that the plant will have a scrap value of Rs. 16,000 at the end of its useful life. Suresh decides to charge depreciation according to the depreciation fund method. The depreciation fund investment are expected to earn an interest @5\% p.a. The sinking fund table shows that Re. 0.180975 if invested yearly at $5 \%$ p.a. produces Re. 1 il the end of 5 years. The investment are sold at the end of the $5^{\text {th }}$ year for a sum of Fis. 65,000 . A new plant was purchased for Rs. 1,20,000 on 1.1.2019. The scrap value of the old plant realizes Rs.17,000.
Prepare Lease Account, Depreciation Fund and Deprecialion Fund Investment $\Lambda$ ccounts.

Q2A. Amul Company Ltd. is incorporated with an authorized capital of Rs. 20,00,000 divided into 20,000 shares of Rs. 100 each. The company issued 10,000 shares of Rs. 100 each payable as under:
On Application Rs. 20, on Allotment Rs. 30, on First Call Rs. 20 and Final Call Rs. 30 ,
Application received for 15,000 shares. The Directors decided to allot the shares as - follows:

To the applicants for 7000 shares: 7000 shares allotted
To the applicants for 5000 shares: 3000 share allotted,
To the applicants for 3000 shares: Nil shares allotted.
The diectors did not make the linal call. All the money duc on shares were duly received except the first call on 500 shares.
Give Journal Entries.

Q2.B.Distinction between Buy-Back of Equity Shares $V_{S}$ Redemption of Preference shares.

Q3. The Books of Mr. Deshpande maintained by Sinole Entry System showed the following:

| Particular | 31.12 .2017 (Rs.) | $31.12 .2018($ Rs. $)$ |
| :--- | ---: | ---: |
| Cash al Bank | $4,000)$ | 15,000 |
| Cash in hand | 500 | 800 |
| Stock in Trade | 24,000 | 22,800 |
| Sundry Debtors | $?$ | 40,000 |
| Sundry Creditors | 23,500 | 22,800 |
| Furniture \& Fillines | 3,000 | $?$ |

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The cash amalysis shered the bollowime ligeres:

| The cash amalysis shenced the loflownme dey |  |  | Amomnt |
| :---: | :---: | :---: | :---: |
| Particular | Amount (Rs.) |  |  |
| Receipt from debtors | 1,30,000 | $\begin{aligned} & \text { Salaries uplo } \\ & 30.11 .2018 \end{aligned}$ | 11,000) |
| Further Capital brought on 172015 | 10,000 | Office Rent upto $31.12 .2018$ | 2,000 |
| Discount allowad 10 | $2 .(0)()$ | Adverlising: | 1,0000 |
| them |  |  |  |
| Paymonts to cradiors | 1.20,0)()() | Smmay Lixpenses | 1, (\%) 1 |
| Discoum Recocival | 1,50)( | Monor Upacep | 1.100 |
| Drawing | 8.1700 | Proming de Statonary | 800 |
| Band D) hes recorerad | $110)$ | Travelling lixpenses | $2(1) 01$ |

It was further informed that:
a) The Trader maintained a steady gross profit on $25 \%$ on sales.
b) The following expenses are outstanding:

Advertising Rs. 200 and Printing Rs. 180.
c) Allow $8 \%$ interest per annum on capital.
d) Depreciate motor vehicle and furniture by $20 \%$ \& $10 \%$ respectively.
e) Provide $5 \%$ on book debts to cover doubtful debts.
f) Provide $2.5 \%$ discount on Debtors.

You are required to prepare Trading and Protin \& Loss Accome and Balance Sheed of Deshpande for the yeire 31:4 Dec. 2018

Q4A. The Dell Company Ltd. has furnished the Balance sheet for the year ended on 31/12/2018.

Balance Sheet of Dell Company Ltd. as on 31/12/2018.

| - Liabilities | (Rs.) | Assets | (Rs.) |
| :---: | :---: | :---: | :---: |
| Equity Share of Rs. 10 each | 7,00,000 | Bank Balance | 6,00,000 |
| $705 \%$ Preference Share Capital | 3,00,000 | Fixed Assets | 19,00,000 |
| Profit \& Loss Account | 2,50,000 | Ohmer Cument Assets | 5,00,000 |
| General Reserve | 1,50,000 |  |  |
| Securities Premium | 1,10,000 |  |  |
| Dividend Equalization Reserve | 90,000 |  |  |
| 11.5\% debenture | 4,00,000 |  |  |
| Bank Loan | 4,00,000 |  |  |
| Creditors | 6,00,000) |  |  |
|  | $30,000,0000$ |  | 30,000,0000 |

The Company decided to buyback maximum no. of equity Shares al a maximum price.
All the legal requirements to be fulfilled.
Pass Journal Entries in the books of the Company
(24.B. Explain different types of Capital of a Company.
 20,000 wass spent on its installation.
On $1^{\text {st }}$ October 2014, another plant was acepuired for Rs. 250), ()) () .
Due to an accident on $31^{\text {st }}$ December, 2015, the first plant was totally destroycd and (1)1 the same day that plant were sold for Rs. 50,000 only.
On Ist January, 2016, a second hand plant was purchased for Rs. 30,000 and further, a s imin of Rs. 5,000) was spent for bringing the same.
 were insured. The accoun were closed ammally on 313 December every year.
It is now decided to follow the rate of $1.5 \%$ on Diministhing b:alance Me dhed will prospective effed in resped of the existing ilems of plant and to make the necess: any


Q6. The Following is the balance Shed of Pay Back L, id. as an 31" December 2018:

| Liabilities | (Rs.) | Assets | (Rs.) |
| :--- | ---: | :--- | :--- |
| 5,000 Equity Shares of <br> Rs. 100 each fully paid <br> up | $5,00,000$ | Sundry Assets | $11,10,000$ |
| 5,000 6\% Preference <br> Shares of Rs. 100 each <br> fully paid up | $5,00,000$ | Cash at Bank | $5,85,000$ |
| Capital Reserve | $1,15,000)$ |  |  |
| Sccurities Premium | $5,000()$ |  |  |
| Gencral Rescrve | $1,35,000$ |  |  |
| Dividend equalization <br> Reserve | 75,000 |  |  |
| Profit \& Loss Account | $2,70,000$ |  |  |
| Sundry Creditors | 95,000 |  | $\mathbf{1 6 , 9 5 , 0 0 0}$ |

The Company decided to redeem the preference shares at a premium $\mathrm{f} 5 \%$. For the purpose of redemption the company resolve that:
a. $10006 \%$ debenture of Rs. 100 each shall be issued at a premium of $5 \%$.
b. The profits of the company, stall be applied so far as may be possible, after leaving a balance of Rs. 50,000 in the Prolit and Loss Account.
c. Equity shares of Rs. 100 each may also be issued, if necessary.

Give relevant Journal Entries assuming that the redemption was duly carried out. Also prepare the Balance Sheet after such redemption.


$$
\begin{aligned}
& 2018-2019 \\
& \operatorname{Sem} I-I I
\end{aligned}
$$



Maximum Marks: 80 Marks

## Instructions: 1) Question No. I is Compmsory

2) Q. No. 2 to Q. No. 6 amswer anty Itrece Question.
3) Fisisures to the right imlicate muximmm marlis allothetl.


Q1. Suresh bought a plant on $1^{\text {st }}$ January $2(0) 14$ for the sum ol Rs. $1,(0),(0)()$ having a useful Itile of 5 years. It is estimated that the plant will have a scrap value of Rs. 16,000 at the end of its useful life. Suresh decides to charge depreciation according to the depreciation fund method. The depreciation fund investment are expected to earn an interest @5\% p.a. The sinking fund table shows that Re. 0.180975 if invested yearly at $5 \%$ p.a. produces Re. 1 at the end of 5 years. The investment are sold at the end of the $5^{\text {th }}$ year for a sum of Rs. 65,000 . A new plant was purchased for Rs. 1,20,000 on 1.1.2019. The scrap value of the old plant realizes Rs.17,000.
Prepare Lease Account, Depreciation Fund and Depreciation Fund Investment $\Lambda$ ccounts.

Q2A. Amul Company Ltd. is incorporated with an authorized capital of Rs. 20,00,000 divided into 20,000 shares of Rs. 100 each. The company issued 10,000 shares of Rs. 100 each payable as under:
On Application Rs. 20, on Allotment Rs. 30, on First Call Rs. 20 and Final Call Rs. 30.
Application received for 15,000 shares. The Directors decided to allot the shares as - follows:

To the applicants for 7000 shares: 7000 shares allotted
To the applicants for 5000 shares: 3000 share allotted,
To the applicants for 3000 shares: Nil shares allotted.
The directors did not make the final call. All the money due on shares were duly received except the first call on 500 shares.
Give Journal Entries.

Q2.B.Distinction between Buy-Back of Equity Shares Vs Redemption of Preference shares.
(Any five points)

Q3. The Books of Mr. Deshpande maintained by Sinele Entry System showed the following:

| - Particular | 31.12.2017 (Rs.) | 31.12 .2018 (Rs.) |
| :---: | :---: | :---: |
| Cash at Bank | 4,000 | 15,000 |
| Cash in hand | 500 | 800 |
| Stock in Trade | 24,000 | 22,800 |
| Sundry Debtors | $?$ | 40,000 |
| Sundry Creditors | 23,500 | 22,800 |
| Furniture \& Fitlings | $3,00()$ | $?$ |


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| :---: | :---: | :---: | :---: |
| Whow \amke |  |  | 八刀いいいい（R， |
|  |  | P＇arlicular |  |
| Particular | Amonnol（ks．） | Salaries upto | 11， 0 |
| Reccipt from dehtors | ，30，000 | 30．11．2018 |  |
|  | 10，000 | Oflice Rent upto <br> 3112.2018 | 2,500 |
| Further Compital bromeht on 1．7．2015 | 2，000 | Alvertisin： | 1,060 |
| Discomnt allowed 10 them |  |  |  |
|  | 1．21．01）（0） | Sumbly Lixpens | 1．8010 |
| Paymonts as cradions | 1．21．50） | Mororlykerp | 1．110） |
| Discomm Reccival | R，0）（0） | Trinling d Stalionary | S101 |
| Drawing | 1.410 | Travelling lixponses | 2（1）19 |
| Band Dehts recoveral |  |  |  |

It was further informed that：
a）The Trader maintained a steady gross profit on $25 \%$ on sales．
b）The following expenses are outstanding：
Advertising Rs． 200 and Printing Rs． 180.
c）Allow $8 \%$ interest per annum on capital．
d）Depreciate motor vehicle and furniture by $20 \% \& 10 \%$ respectively．
e）Provide $5 \%$ on book debts to cover doubtful debts．
f）Provide $2.5 \%$ discount on Debtors．
You－are required to prepare Trading and Prolit \＆Loss Aecount and Balance Shee of Deshpande for the year $31^{51}$ Dec． 2018

Q4A．The Dell Company Ltd．has furmished the Balance sheet for the year ended on 31／12／2018．

Balance Sheet of Dell Company Ltd．as on 31／12／2018．

| Balance Sheet of Dell Company Ltd．as on 31／12／2018． |
| :--- |
| Liabilities （Rs．） Assets （Rs．） <br> Equity Share of Rs．10 <br> each $7,00,000$ Bank Balance $6,00,000$ <br> $705 \%$ Preference Share $3,00,000$ Fixed Assets $19,00,000$ <br> Capital    |
| Prolit \＆Loss Account |

The Company decided to buyback maximum no．of equity Shares at a maximum price．
All the legal requirements to be fulfilled．
Pass Journal Entrics in the books of the Company
Q4．B．Explain differen lypes of Capital of a Company．



Due to an accident on $31^{\prime \prime}$ December, 2015, the first plant was totally destroyed and on the same day that plant were sold for Res.50,(0)00 only.
On $1^{4}$ Jambary, 2016, a second hand plant was purchased for Rs. 30,000 and further, a s $\quad 1 m$ of Rs. $5.0(0)$ was spent for bringing the same.
Depreciation has been provided al $10 \%$ patan Shameh lime method. None of the assed.





(21)

Q6. The Following is the balance Sheed of Pay Back Lad as at 310 December 2(0) 8 :

| Liabilities | (Rs.) | Assets | (Rs.) |
| :--- | ---: | :--- | :--- |
| 5,000 Equity Shares of <br> Rs. 100 each fully paid <br> up | $5,00,000$ | Sundry Assets | $11,10,000$ |
| $5,0006 \%$ Preference <br> Shares of Rs. 100 each <br> fully paid up | $5,00,000$ | Cash at Bank | $5,85,000$ |
| Capital Rescrve | $1,15,0000$ |  |  |
| Securities Premium | $5,0) 0$ |  |  |
| General Reserve | $1,35,000$ |  |  |
| Dividend equalization <br> Reserve | 75,000 |  |  |
| Profit \& Loss Account | $2,70,000$ |  |  |
| Sundry Creditors | 95,000 |  |  |
|  | $\mathbf{1 6 , 9 5 , 0 0 0}$ |  | $\mathbf{1 6 , 9 5 , 0 0 0 )}$ |

The Company decided to redeem the preference shares at a premium $5 \%$. For the purpose of redemption the company resolve that:
a. $10006 \%$ debenture of Rs. 100 each shall be issued at a premium of $5 \%$.
b. The profits of the company, shall be applied so far as may be possible, after leavinga balance of Rs. 50,000 in the Prolit and Loss Account.
c. Equity shares of Rs. 100 each may also be issued, if necessary.

Give relevant Journal Entries assuming that the redemption was duly carried out. Also prepare the Balance Sheet after such redemption.


## B.Com Semester End Examination

General Management

## Scmester: 1

## Duration: 2 Hrs.

## Maximum Marks: 80

## Instructions 1) All questions are compulsory

2) Figures to the right indicate maximum marks.
3) Start each new question in a fresh page.

QI.AnswerANY FOUR of the following
a) Importance of management
b) Japanese style of management
c) Production department
d) Rationality in decision making
e) Guidelines for effective decision making
f) Routine decisions

Q2.AnswerANY FOUR of the following
a) Reasons for change
b) Resistance to change
c) Conflict management
d) Logistics management
e) Causes of stress
f). Green management
Q. 3 B) What do you mean by functional arcas of management? Explain the different functional areas of management
Q. 4 A) What is decision making? Explain its importance in business

## OR

Q. 4 B) Explain the various steps in decision making process
Q. 5 A) What is Change Management? Explain its features

## OR

- Q. 5 B) What is Conflict Management? Explain the different types of conflicts
Q. 6 A) What is Stress? Explain the different types of stress

OR
Q.6 B) What is Logistics management? Explain its Features

## Semester-I

Max Marks: 80
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## Exemination

Instructions: (1) Attempt all questions
(2) Figures to the right indicate full marks.

## Q. 1 Attempt the following:

-, sing truth table that $p \vee(q \wedge r) \equiv(p \vee q) \wedge(p \vee r)$.
in sum of simple interest becomes Rs. 1200 in 2 years and Rs. 1300 in 3
yeat. Ind the principal and the rate of interest per annum.
c) Find the value of $n$ if $3\left({ }^{n} P_{3}\right)={ }^{n} P_{4}$.
d) Find the sum $5+55+555+\ldots$ up to $n$ terms.
e) If $A=\left[\begin{array}{ll}1 & 3 \\ 2 & 4\end{array}\right]$ and $B=\left[\begin{array}{cc}-1 & 2 \\ 2 & -1\end{array}\right]$, find the matrix $X$ such that $3 A+$ $5 B+2 X=0$.

## OR

## Q. 1 Attempt the following:

$(5 \times 4=20)$
p) Construct the truth table for $(p \wedge q) \wedge \sim(p \vee q)$.
q) Find the compound interest on Rs. 1200 at $8 \%$ annually for 2 years if
i) Interest is calculated half yearly
ii) Interest is calculated quaterly.

r) $\Lambda 3$ digit number is to be formed using the digits from 0 to 9 . How many such numbers can be formed if
i) the repetition of digits in the number is allowed.
ii) the repetition of digits is not allowed.
s) Find the sum of all numbers from 100 to 300 which are exactly divisible by 3 .
t) If $\triangle=\left[\begin{array}{cc}3 & -2 \\ 4 & 0\end{array}\right]$ and $N=\left[\begin{array}{ll}2 & 0 \\ 3 & 1\end{array}\right]$. find the matrix $3 M-2 N+1$, where $I$ is
the identity matrix of order 2 .

## Q. 2 Attempt the following:

a) Sharad invested in an ammity with hall yearly period for 4 years alle rate of interestof $8 \%$ on 10
 periodic payment?
b) Find the point of intersection of lines $3 a+7 b=10,5 a-3 b=2$
c) The universal set $X=\{x / x$ is positive integer less than 11$\}$
$A=\{2,4,7,9\}$ and $B=\{1,3,5,7\}$. Verify $(A \cup B)^{C}=A^{C} \cap B^{C}$.
d) In a G.P. the fourth and seventh terms are 24 and 81 respectively. Find the first term and common ratio.
e) If ${ }^{n} C_{5}={ }^{n} C_{6}$, find the value of $n$.

## OR

## Q. 2 Attempt the following:

p) Jitu received Rs. 8240 as maturity amount at the end of 2 years on his annuity, the period of payment being end of each year. Find the size of his yearly installment if the rate of interest was $6 \%$ compounded on yearly basis.
q) Using Cramer's rule, solve the following equations.
r) Use Venn diagram to show that for any sets $A$ and $B, A \cup B=A \cup(B-A)$.
s) If the sum of three terms in $A P$ is 15 and their product is 80 . Find the three numbers.

1) A committee of 3 members is to be formed from 4 Mathematicians and 6 Statisticians. In how many ways this can be done if the committee contains
i) Exactly one mathematician
ii) At most one Mathematician.

## Q 3. Attempt the following:

a) Prove that $[(p \wedge q) \rightarrow p] \rightarrow(q \wedge \sim q)$ is a contradiction.
b) $A$.and $B$ are two subsets of the universal set $X$ such that $n(X)=99, n\left(A^{C}\right)=80, n\left(B^{C}\right)=85$ and $n\left[(A \cap B)^{C}\right]=94$, find $n(A \cup B)$.
c) Find the amount and the compound interest on Rs. 1500 for 4 years at $12 \%$ calculated on yearly basis.
d) If ${ }^{n} C_{r}=120$ and ${ }^{n} P_{r}=720$, lind the value of $n$ and $r$.
e) If the sum of the first $n$ terms of an $A P$ with a 1 and $d=5$ is 286 , find $n$.

Q 3. Attempt the following:
p) Prove that $(p \rightarrow q) \rightarrow|(\sim p \rightarrow q) \rightarrow q|$ is a taumolow.
q) Find $x$ if $\left|\begin{array}{lll}x & 1 & 2 \\ 3 & x & 3 \\ 1 & 3 & 2\end{array}\right|=0$
r) Ketan borrows 2000 from Sachin at compound interest of 10$)^{\prime \prime}$ per annum, to be compounded on quaterly basis. What amount is due to him after 9 month? Also state his interest.
s) 9 cards are selected from a pack of card. How many selections will contain
i) Exactly 3 diamonds and 2 clubs
ii) No diamond card.
t) Shyam invested Rs. 20 in the first month and then doubles, his investment every month for 11 months. Find his last investment and the total investment over 11 months.

## Q 4. Attempt the following:

a) Find the sum borrowed by Rahul from a bank on compound interest of $5 \%$ per year, to be calculated annually, if he had to pay back `26,460 after 2 years. b) How many words can be formed from letters of the word EQUATION, so that it begins with a consonant and end with a vowel. c) Sheetal keeps aside Rs. 600 in the first month and increases her savings by Rs. 60 in every subsequent month. What will be her total savings at the end of 3 years. d) Find the principal, if the compond interest payable quaterly at \(12 \%\) per annum for 2 years is` 420 .
e) If $A=\left[\begin{array}{ll}1 & 2 \\ 3 & 4\end{array}\right]$ find the matrix $B$ such that $A^{2}+2 A+B=0$.

OR
Q. 4 Attempt the following:

$(5 \times 4=20)$
p) Find the present value of an annuity of Rs.2000, paid at the end of each year for 4 years, at $11 \%$ compounded annually.
q) From 5 professors and 7 students, a committee of 4 is to be formed. In how many ways this can be done, if the committee contains
(1) Exactly 3 professors
(2) 11 most 2 professors
r) Mr. X pays Rs. 2000 in monthly installments, each installment is less than the former by Rs. 10. The amoum of the first installment is Rs. 200. In what time will the entire amount be paid?
s) Find the sum borrowed by Rahul from a bank on compound interest of $5 \%$ per year, to be calculated annually, if he had to pay back ` 26,460 after 2 years.

1) If $A=\left[\begin{array}{lll}3 & 6 & 9 \\ 1 & 0 & 1 \\ 2 & 3 & 5\end{array}\right]$, find the matrix $A^{2}$ and $A^{\prime}$.

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## B. Com Semester End Examination

## ENVIRONMIENTALSTUIISS

Semester:1
Duration: 1.30 Hrs.
Mavimum Marks: 40

## Instructions: 1. All questions are compulsory <br> 2. Figures to the right indicates marks

Q.1. Answer any FIVE of the followings
a. Explain the term Biodiversity-Hot spot
b. List any two problems of Dams on environment
c. What is threatened species? Give at least two examples.
d. What is Lotic ecosystem?
e. State any two threats to bio-diversity.
f. Explain the term Eutrophications and plants species responsible for Eutrophication.
g. Explain food chain and food web with suitable examples?

Q2A. Discuss on the different methods of conservation of Forest
OR
Q2A. Individual role of biodiversity conservation
Q2B. What is Role biodiversity in maintaining nutrient cycle?

Q3A. Discuss the role of Non Conventional energy in future.
OR
Q3A. Write a short note on Western Ghats.
Q3B. Correlate over exploitation of mineral resources and environmental damage.

Q4A. Discuss on different levels of Diversity

## OR

Q4A. Write a short note on Thermal Power
Q4B. Write a short note on your visit to biodiversity conservation


