# В

М

# (Printed Pages 4)

(20614) Roll No. .....

BBA/BCA/BPT/BOT/BMT/etc.

# NP-3440

BPT/BOT/BMT/BBA/BCA/BJMC/BFA/Act

Examination, June 2014

# **Environmental Studies**

(BPT/BOT/BMT/BBA/BCA/BJMC/BFA/Act-008)

Time: Three Hours ] [Maximum Marks: 100

**Note**: Attempt all the sections as per instructions.

नोट: सभी खण्डों को निर्देशानुसार हल कीजिये।

Section - A / खण्ड - अ

# (Detailed Answer Questions)

(विस्तृत उत्तरीय प्रश्न)

**Note:** This section contains **six** questions, attempt any **three** questions. Each question carries 20 marks. 20×3=60

नोट: इस खण्ड में छः प्रश्न हैं, किन्हीं तीन प्रश्नों को हल कीजिए। प्रत्येक प्रश्न 20 अंकों का है। विस्तृत उत्तर अपेक्षित है।

P.T.O.

https://www.ccsustudy.com

https://www.ccsustudy.com

- What do you understand by Environment?
  Give an account of its importance.
  पर्यावरण से आप क्या समझते हैं? इसके महत्व पर प्रकाश डालिए।
- Give an account of Natural Resources.
   प्राकृतिक संसाधनों का वर्णन कीजिए।
- Explain the changing relationship between man and environment.
   मानव एवम् पर्यावरण के मध्य बदलते सम्बन्धों की व्याख्या कीजिए।
- 4. What in pollution? Examine the causes and consequences of water pollution.
  प्रदूषण किसे कहते हैं? जल प्रदूषण के कारण एवम् परिणामों का परीक्षण कीजिए।

https://www.ccsustudy.com

- Write an essay on conservation of forest resources.
   वन संसाधनों के संरक्षण के उपायों पर एक निबन्ध लिखिए।
- 5. Discuss the causes and consequences of population explosion.

जनसंख्या विस्फोट के कारणों एवम् प्रभावों का वर्णन कीजिए।

NP-3440\6500\2

# Section - B / खण्ड - ब (Short Answer Questions)

# (लघू उत्तरीय प्रश्न)

Note: This section contains three questions. At-

tempt any two questions. Each questions carries 10 marks. Short answer is required not exceeding 200 words.  $10 \times 2 = 20$ इस खण्ड में तीन प्रश्न है, किन्हीं दो प्रश्नों को हल नोट : कीजिए। प्रत्येक प्रश्न 10 अंकों का है। अधिकतम 200

List out the advantages of Hydro-electricity. जलविद्युत के लाभों का वर्णन कीजिए।

शब्दों में लघु उत्तर अपेक्षित है।

- Discuss the Global charges in the climate due to green house effect. ग्रीन हाउस प्रभावों के कारण जलवायु में भूमण्डलीय परिवर्तनों का वर्णन कीजिए।
- Describe food resources of India. भारत के भोजन (संसाधनों) का वर्णन कीजिए।

NP-3440\6500\3

P.T.O.

https://www.ccsustudy.com

https://www.ccsustudy.com

# Section - C / खण्ड - स (Very Short Answer Questions) (अति लघु उत्तरीय प्रश्न)

**Note:** This question contains **five** parts. Attempt all the parts. There will be no internal \_\_\_\_\_ choice. Each part carries 04 marks. The answer of each part should be between 20 to 30 words.  $4 \times 5 = 20$ 

इस प्रश्न में **पाँच** भाग है। सभी भाग अनिवार्य है। इनमें कोई आन्तरिक चयन का विकल्प नहीं होगा। प्रत्येक प्रश्न 04 अंकों का है। प्रत्येक भाग का उत्तर 20 से 30 शब्दों के मध्य अपेक्षित है।

10. Write short notes on the following: निम्नलिखित पर संक्षिप्त टिप्पणियाँ लिखिए :

> National forest conservation policy राष्ट्रीय वन संरक्षण नीति

https://www.ccsustudy.com

- Aims of Health Education स्वास्थ्य शिक्षा के उद्देश्य
- Food chain खाद्य श्रृंखला
- (iv) Major Sources of Biofuel जैव ईंधन के मुख्य स्रोत
- (v) Any four National Parks of India भारत के किन्हीं चार राष्ट्रीय उद्यानों के नाम

### NP-3440\6500\4

М

(Printed Pages 7)

(20115)

Roll No. .....

B.B.A.-I Sem.

# 18039

# B.B.A. Examination, Dec. 2014 Book-keeping and Basic Accounting (BBA-104)

(New)

Time: Three Hours 1

[Maximum Marks: 75]

https://www.ccsustudy.com

https://www.ccsustudy.com

Note: Attempt questions from each section as per instructions. Use of calculator is allowed.

# Section-A

# (Very Short Answer Questions)

**Note:** Attempt all the **five** questions of this section. Each question carries 3 marks. Very short answer is required not exceeding 75 words.  $3 \times 5 = 15$ 

P.T.O.

What do you mean by the term "book keeping"?

- What is dual aspect of accounting?
- Differentiate between bill of Exchange and Promissory notes. https://www.ccsustudy.com
- What is depreciation? Give the names of any three methods of it.
- What is the difference between shares and debentures?

### Section-B

https://www.ccsustudy.com

# (Short Answer Questions)

Note: This section contains three questions, attempt any two questions. Each question carries 71/2 marks. Short answer is required not exceeding 200 words.  $7\frac{1}{2} \times 2 = 15$ 

Describe the basic accounting principles and conventions.

### 18039\19000\2

https://www.ccsustudy.com

8. Discuss the conditions of redemption of Preference Shares.

# Section-C

# (Detailed Answer Questions)

Note: This section contains five questions, attempt any three questions. Each question carries 15 marks. Answer is required in details.  $15 \times 3 = 45$ 

Use accounting equation to show the effect of the following transactions on assets liabilities and capital and also show the balance sheet.

Rs.

Sparsh commenced business with cash 50,000

18039\19000\3 P.T.O.

https://www.ccsustudy.com

https://www.ccsustudy.com

(2) Purchased goods for cash Rs.15000/and credit Rs. 10,000/-Sold goods for cash Rs. 25000/- Costing Rs. 20,000/-Brought furniture on 5000/credit (5) Brought refrigerator 6000/for Personal use (6) Cash withdrawns for 2000/personal use 1000/-(7) Rent Paid (8) Sold goods on credit, 7000/costing Rs. 5000/-7000/-(9) Paid cash to a creditor (10) Interest on capital @ 5%

https://www.ccsustudy.com

## 18039\19000\4

https://www.ccsustudy.com

10.	From the following Trail balance and addi-				
	tional information, you are required to pr				
	pare Trading and P & L A/C and Balance sheet:				

pare Trading and P&LA/C and Balance sheet.							
	Rs.		Rs.				
Capital	20000	Sundry Debtor	5400				
Sundry Creditors	2800	Drawings	1800				
Sales	29000	Machinery	7000				
		Wages	10000				
		Purchase	19000				
		Opening stock	4000				
		Bank Balance	3000				
		Carriage Inward	d 300				
		Salaries	400				
		Rent & tax	900				
	51800		51800				
Additional Info	rmation	:	Rs.				
(i) Closing st	tock		10000				
(ii) Wages Pro	epaid		400				
39\19000\5			P.T.O.				

https://www.ccsustudy.com

https://www.ccsustudy.com

Outstanding Salaries (iii)

100

- (iv) Charge depreciation on machinery at 10%
- 11. Monika Ltd. issued on 1st March 2012, 25000 equity shares Rs. 100 each at premium of Rs. 25 per share payable as follows:

On application Rs. 25

On allotment Rs. 75 (Including Premium) and the balance as and when required.

The company went on allotment on March 15 allotment money was received on March 31. Show Journal entries for recording the above transactions and show the company's balance sheet.

18039\19000\6

18039\19000\5

- 12. What is difference between Capital and Revenue Expenditure? Give some examples when revenue expenditure becomes capital expenditure.
- 13. What are debentures? What are their various classes?

https://www.ccsustudy.com

https://www.ccsustudy.com Whatsapp @ 9300930012 Send your old paper & get 10/-अपने पुराने पेपर्स क्षेत्र और 10 रुपये पार्ये, Paytm or Google Pay से

# 18039\19000\7

**(2)** 

(20115)

Roll No. ....

BBA-I Sem.

# NP-3039

# B. B. A. Examination, Dec. 2014

### **Business Communication**

(BBA-102)

(Old Course-I)

Time: Three Hours]

[Maximum Marks: 75

https://www.ccsustudy.com

https://www.ccsustudy.com

Note: Attempt question from all Sections as per instructions.

# Section-A

# (Very Short Answer Questions)

Attempt all Five questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words. 3×5=15

- HAS communication any scope.
- 2. How should the order letter be drafted?
- 3. Define sign language.

What are the advantages of E-mail? 4.

What is a page break? 5.

### Section-B

# (Short Answer Questions)

Attempt any two questions out of the following three questions. Each question carries 71/2 marks. Short answer is required not exceeding 200 words. 7½×2=15

https://www.ccsustudy.com

- What is the importance of Communication in 6. Business World?
- What are the Quidelines to conduct an effective 7. interview?
- 8. What is effective written listening?

### Section-C

# (Detailed Answer Questions)

Attempt any three questions out of the following five questions. Each questions carries 15 marks. Answer is required in detail. 15×3=45

NP-3039

https://www.ccsustudy.com

Explain the following categories of introduction of a
 Presentation: 5+5+5

- (a) Orientation
- (b) Motivation
- (c) Report.
- Write a note on Barriers of communication and its improvement.
- 11. Write short notes on the following:  $7\frac{1}{2}$ 
  - (a) Sales presentation
  - (b) Training Presentation.
- Define listening. What are the principles of effective listening. Enumerate the elements of effective listening. https://www.ccsustudy.com
- What is E-mail protocol ? Write advantages and disadvantages of E-mail.

https://www.ccsustudy.com Whatsapp @ 9300930012 Send your old paper & get 10/-अपने पुराने पेपर्स क्षेत्रं और 10 रुपये पार्य, Paytm or Google Pay से

NP-3039-3-2900

https://www.ccsustudy.com

(Printed Pages 4) М

(20115)Roll No. ....

B.B.A. -I Sem.

# 18042

# B.B.A. Examination, Dec. 2014

### **BUSINESS ETHICS**

(BBA-107)

(New)

Time: Three Hours ]

[Maximum Marks: 75

Note: Attempt all the Sections as per instruc-

tions.

# Section-A

# (Very Short Answer Questions)

Note: Attempt all the five questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.

> $3 \times 5 = 15$ P.T.O.

What are the dimensions of business ethics?

What are included in corporate ethical abuses?

Mention other names of corporate social responsibility?

What is cost benefit analysis?

Explain social licence.

### Section-B

# (Short Answer Questions)

https://www.ccsustudy.com

Note: Attempt any two questions out of the following three questions. Each question carries 7.5 marks. Short answer is required in 200 words.  $2 \times 7.5 = 15$ 

- What are the components of business ethics? Explain the purposes of business ethics.
- On which factors SEBI has been focusing for improving the corporate government?

### 18042\19000\2

https://www.ccsustudy.com

https://www.ccsustudy.com

https://www.ccsustudy.com

Business ethics are the form of applied ethics that examine the ethical principles arising in business environment. Explain the above statement.

# Section-C

# (Detailed Answer Questions)

Note: Attempt any three questions out of the following five questions. Each question carries 15 marks. Answer is required in detail.  $15 \times 3 = 45$ 

- 'The concept of privacy comprises both ethical and legal aspects. Explain the above statement with reference to privacy within digital contexts.
- 10. What are Gandhi's seven greatest social sins?
- 11. 'Indian philosophy and thought have promoted entrepreneurship.' Explain the above statement.

18042\19000\3 P.T.O. 12. 'Social accounting is the communication of social and environmental effects of company's economic actions; Discuss in detail.

# 13. Explain the following-

- (a) Crises and their consequence.
- (b) Subject matter of corporate governance.

https://www.ccsustudy.com

- Indian ethics for work life.
- (d) Work life balance.

https://www.ccsustudy.com Whatsapp @ 9300930012 Send your old paper & get 10/-अपने पुराने पेपर्स भैजे और 10 रुपये पाये, Paytm or Google Pay ₹

18042\19000\4

https://www.ccsustudy.com

https://www.ccsustudy.com

https://www.ccsustudy.com

(Printed Pages 4) М

(20115)Roll No. ....

B.B.A. -I Sem.

# 18042

# B.B.A. Examination, Dec. 2014

### **BUSINESS ETHICS**

(BBA-107)

(New)

Time: Three Hours ]

[Maximum Marks: 75

Note: Attempt all the Sections as per instruc-

tions.

# Section-A

# (Very Short Answer Questions)

Note: Attempt all the five questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.

> $3 \times 5 = 15$ P.T.O.

What are the dimensions of business ethics?

What are included in corporate ethical abuses?

Mention other names of corporate social responsibility?

What is cost benefit analysis?

Explain social licence.

### Section-B

# (Short Answer Questions)

https://www.ccsustudy.com

Note: Attempt any two questions out of the following three questions. Each question carries 7.5 marks. Short answer is required in 200 words.  $2 \times 7.5 = 15$ 

- What are the components of business ethics? Explain the purposes of business ethics.
- On which factors SEBI has been focusing for improving the corporate government?

### 18042\19000\2

https://www.ccsustudy.com

https://www.ccsustudy.com

https://www.ccsustudy.com

Business ethics are the form of applied ethics that examine the ethical principles arising in business environment. Explain the above statement.

# Section-C

# (Detailed Answer Questions)

Note: Attempt any three questions out of the following five questions. Each question carries 15 marks. Answer is required in detail.  $15 \times 3 = 45$ 

- 'The concept of privacy comprises both ethical and legal aspects. Explain the above statement with reference to privacy within digital contexts.
- 10. What are Gandhi's seven greatest social sins?
- 11. 'Indian philosophy and thought have promoted entrepreneurship.' Explain the above statement.

18042\19000\3 P.T.O. 12. 'Social accounting is the communication of social and environmental effects of company's economic actions; Discuss in detail.

# 13. Explain the following-

- (a) Crises and their consequence.
- (b) Subject matter of corporate governance.

https://www.ccsustudy.com

- Indian ethics for work life.
- (d) Work life balance.

https://www.ccsustudy.com Whatsapp @ 9300930012 Send your old paper & get 10/-अपने पुराने पेपर्स भैजे और 10 रुपये पाये, Paytm or Google Pay ₹

18042\19000\4

https://www.ccsustudy.com

https://www.ccsustudy.com

https://www.ccsustudy.com

https://www.ccsustudy.com

M

(Printed Pages 4)

(20115)

Roll No. ....

B.B.A.-I Sem.

# 18040

# B.B.A. Examination, Dec. 2014 BUSINESS LAWS

(BBA-105)

(New)

Time: Three Hours |

[Maximum Marks: 75

**Note:** Attempt **all** the sections as per instructions.

# Section-A

# (Very Short Answer Questions)

**Note:** Attempt all the **five** questions. Each questions carries **3** marks. Very short answer in required not exceeding 75 words.

 $3 \times 5 = 15$ 

1. What are the essentials of a Valid Contract?

P.T.O.

- Distinguish between particular lien and general lien.
- State under that circumstances an agency may be terminated.
- Explain various types of crossing.
- 5. What are the liabilities of exporter regarding export of goods?

# Section-B

# (Short Answer Questions)

Note: This section contains three questions, attempt any two questions. Each question carries 71/2 marks. Short answer is required not exceeding 200 words.

 $7\frac{1}{2} \times 2 = 15$ 

 Explain the various ways in which a contract may be discharged.

# 18040\19000\2

https://www.ccsustudy.com

- "All Cheques are bills of exchange- whereas all bills of exchange are not cheques" Discuss this statement.
- What do you understand by Consumer protection? Give the main rights of a consumer.

### Section-C

# (Detailed Answer Questions)

Note: This section contains five questions, attempt any three questions. Each question carries 15 marks, Answer is required  $15 \times 3 = 45$ in details.

- What constitutes a sub agent ? What is his 9. position in relation to agent, principal and third party? Distinguish between sub agent and substituted agent.
- 10. What do you understand by acceptance for honour and payment for honour? What are the rights and liabilities of acceptor for hon our?

P.T.O. 18040\19000\3

11. What is 'Partnership deed'? What are the essential elements of a partnership deed? Discuss the rules which are applicable in the absence of the partnership deed.

12. What is Consumer Protection Act 1986? Explain the rights of consumer.

### OR

State the Various methods of terminating an agency. In what conditions can an agency be irrevocable?

https://www.ccsustudy.com

13. Distinguish between a 'Condition' and a 'Warranty'. In what circumstances can breach of condition be treated as a breach of warranty?

> https://www.ccsustudy.com Whatsapp @ 9300930012 Send your old paper & get 10/-अपने पुराने पेपर्स भैजे और 10 रुपये पाये, Paytm or Google Pay ₹

https://www.ccsustudy.com

https://www.ccsustudy.com

18040\19000\4

https://www.ccsustudy.com

M

(Printed Pages 7)

(20115)

Roll No. .....

B.B.A. - I Sem.

# 18037

# B.B.A. Examination, Dec. 2014

### **Business Mathematics**

**BBA - 102** 

(NEW)

Time: Three Hours J

[ Maximum Marks : 75

https://www.ccsustudy.com

https://www.ccsustudy.com

**Note:** Attempt **all** the sections as per directions.

नोट : सभी खण्डों को निर्देशानुसार हल करें।

Section - A

खण्ड - क

(Very Short Answer Questions)

(अति लघु उत्तरीय प्रश्न)

**Note:** Attempt all **five** questions. Each question carries **three** marks. Very short answer is required not exceeding 75 words.  $5 \times 3$ 

P.T.O.

नोट : सभी पाँच प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न तीन अंक का है। अधिकतम 75 शब्दों में अतिलघु उत्तर अपेक्षित है।

1. If 
$$A = \begin{bmatrix} 2 & 3 \\ 4 & 5 \end{bmatrix}$$
, find 5A-I.

यदि 
$$A = \begin{bmatrix} 2 & 3 \\ 4 & 5 \end{bmatrix}$$
,

5A-I का मान निकालिये।

2. If, 
$$A = \begin{bmatrix} 4 & -3 & 6 \\ 3 & 1 & 4 \end{bmatrix}$$
, find  $A^t$ .

$$\overline{a}$$
  $A = \begin{bmatrix} 4 & -3 & 6 \\ 3 & 1 & 4 \end{bmatrix}$ ,

A का ट्रांसपोज निकालिये।

3. Differentiate  $y = (5x - 7)^5$ .

 $y = (5x - 7)^5$  का अवकलन ज्ञात कीजिए।

Prove that if A is non-singular matrix, then (A<sup>-1</sup>)<sup>-1</sup> = A.

https://www.ccsustudy.com

सिद्ध कीजिए यदि A नॉन सिंगुलर मैट्रिक्स है तो  $(A^{-1})^{-1} = A$ . 18037\19000\2

https://www.ccsustudy.com

Define simple and compound interest. 5.

साधारण और मिश्रित ब्याज को परिभाषित कीजिए।

### Section - B

### खण्ड - ख

# (Short Answer Questions)

# (लघु उत्तरीय प्रश्न)

Note: Attempt any two questions out of the following 3 questions. Each question carries 7.5 marks. Short answer required not ex-2×7.5 ceeding 200 words.

निम्नलिखित 3 प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर नोट : दीजिए। प्रत्येक प्रश्न 7.5 अंक का है। अधिकतम 200 शब्दों में लघु उत्तर अपेक्षित है।

Solve the following system of equation by using Cramer's rule:

$$2x - y = 1$$
,  $7x - 2y = -7$ 

18037\19000\3

P.T.O.

निम्नलिखित समीकरणों को क्रेमर्स रूल से हल कीजिए: 2x - y = 1, 7x - 2y = -7

Where 60% of the number is added to 32, the result is the number. Find the number. किसी नम्बर का 60% 32 में जोड़ने पर वही नम्बर प्राप्त होता है तो नम्बर ज्ञात कीजिए।

What is complement of a set?

किसी सैट का काम्पलीमेंट क्या होता है?

Section - C

खण्ड - ग

# (Detailed Answer Questions)

# (विस्तृत उत्तरीय प्रश्न)

Note: Attempt any three questions out of the following 5 questions. Each question carries 15 marks. Answer is required in detail.

 $3 \times 15$ 

https://www.ccsustudy.com

18037\19000\4

https://www.ccsustudy.com

$$5x - y - 2z = 142$$

$$x - 3y - z = -30$$

$$2x - y - 3z = -50$$

गौस एलीमिनेशन मैथड से हल कीजिए:

$$5x - y - 2z = 142$$

$$x - 3y - z = -30$$

$$2x - v - 3z = -50$$

- 10. Find the number of permutations of the word:
  - (a) MANAGEMENT
  - (b) MISSISSIPPI

18037\19000\5

P.T.O.

https://www.ccsustudy.com

https://www.ccsustudy.com

निम्नलिखित शब्दों के परमुटेशन्स की संख्या बताइये :

- (क) MANAGEMENT
- (ख) MISSISSIPPI

11. If 
$$y = \left(\sqrt{\frac{x}{a}} + \sqrt{\frac{a}{x}}\right)$$
,

then prove that :

$$2xy\frac{dy}{dx} = \left(\frac{x}{a} - \frac{a}{x}\right).$$

यदि 
$$y = \left(\sqrt{\frac{x}{a}} + \sqrt{\frac{a}{x}}\right)$$
,

तो सिद्ध कीजिए :

$$2xy\frac{dy}{dx} = \left(\frac{x}{a} - \frac{a}{x}\right)$$

12. (a) Differentiate  $x^2$  with respect to  $x^3$ .

 $x^2$  का  $x^3$  के सापेक्ष अवकलन कीजिए।

https://www.ccsustudy.com

18037\19000\6

https://www.ccsustudy.com

(b) Find maxima and minima of  $y = \frac{\log x}{x}$ .  $y = \frac{\log x}{x}$  का अधिकतम और न्यूनतम मान ज्ञात काजिये।

13. (a) If  ${}^{n}C_{6} = {}^{n}C_{12}$ , find the value of  ${}^{n}C_{16}$ .

यदि  ${}^{n}C_{6} = {}^{n}C_{12}$ , तो  ${}^{n}C_{16}$  का मान ज्ञात कीजिए।

(b) If  ${}^{18}C_r = {}^{18}C_{r+2}$ , find the value of r.

यदि  $^{18}$ C $_r = ^{18}$ C $_{r+2}$  , तो r का मान ज्ञात कीजिए।

https://www.ccsustudy.com

https://www.ccsustudy.com Whatsapp @ 9300930012 Send your old paper & get 10/-अपने पुराने पेपर्स क्षेत्र और 10 रुपये पार्य, Paytm or Google Pay से

# 18037\19000\7

М

(Printed Pages 4)

(20115)

Roll No. .....

B.B.A. - I Sem.

# 18036

# B.B.A. Examination, Dec. 2014

# **Business Organization**

(BBA-101)

(New)

Time: Three Hours]

f Maximum Marks: 75

Note: Attempt all the sections as per instructions.

# Section - A

# (Very Short Answer Questions)

Note: Attempt all the five questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.

 $3 \times 5 = 15$ 

P.T.O.

https://www.ccsustudy.com

https://www.ccsustudy.com

- State three main characteristics of business.
- Explain the main problems while selecting a suitable plant location.
- What is partnership deed?
- What do you mean by amalgamation?
- What do you mean by financial planning?

### Section - B

# (Short Answer Questions)

https://www.ccsustudy.com

Note: Attempt any two questions out of the following three questions. Each question carries 7.5 marks. Short answer is required not exceeding 200 words.  $7.5 \times 2 = 15$ 

- Distinguish between partnership and joint stock company.
- What do you mean by reconstruction? How is it differ from amalgamation?

### 18036\19000\2

Explain the main instruments of money market.

### Section - C

# (Detailed Answer Questions)

Note: Attempt any three questions out of the following five questions. Each question carries 15 marks. Answer is required in detail. https://www.ccsustudy.com15×3=45

- What is meant by business? Explain its characteristics and concepts.
- What is business growth? Explain the need, advantages and limitations of business growth.
- 11. What are the various forms of business organization? Explain in detail.

P.T.O. 18036\19000\3

- 12. What do you mean by absorption of companies? Explain the main objectives of absorption. Distinguish between amalgamation and absorption of a company.
- 13. What are the various types of financial market? Explain in detail.

https://www.ccsustudy.com

https://www.ccsustudy.com Whatsapp @ 9300930012 Send your old paper & get 10/-अपने पुराने पेपर्स भैजे और 10 रुपये पाये, Paytm or Google Pay ₹

18036\19000\4

https://www.ccsustudy.com

https://www.ccsustudy.com

https://www.ccsustudy.com

М

(Printed Pages 4)

(20115)

Roll No. .....

B.B.A. - I Sem.

# 18036

# B.B.A. Examination, Dec. 2014

# **Business Organization**

(BBA-101)

(New)

Time: Three Hours]

f Maximum Marks: 75

Note: Attempt all the sections as per instructions.

# Section - A

# (Very Short Answer Questions)

Note: Attempt all the five questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.

 $3 \times 5 = 15$ 

P.T.O.

https://www.ccsustudy.com

https://www.ccsustudy.com

- State three main characteristics of business.
- Explain the main problems while selecting a suitable plant location.
- What is partnership deed?
- What do you mean by amalgamation?
- What do you mean by financial planning?

### Section - B

# (Short Answer Questions)

https://www.ccsustudy.com

Note: Attempt any two questions out of the following three questions. Each question carries 7.5 marks. Short answer is required not exceeding 200 words.  $7.5 \times 2 = 15$ 

- Distinguish between partnership and joint stock company.
- What do you mean by reconstruction? How is it differ from amalgamation?

### 18036\19000\2

Explain the main instruments of money market.

### Section - C

# (Detailed Answer Questions)

Note: Attempt any three questions out of the following five questions. Each question carries 15 marks. Answer is required in detail. https://www.ccsustudy.com15×3=45

- What is meant by business? Explain its characteristics and concepts.
- What is business growth? Explain the need, advantages and limitations of business growth.
- 11. What are the various forms of business organization? Explain in detail.

P.T.O. 18036\19000\3

- 12. What do you mean by absorption of companies? Explain the main objectives of absorption. Distinguish between amalgamation and absorption of a company.
- 13. What are the various types of financial market? Explain in detail.

https://www.ccsustudy.com

https://www.ccsustudy.com Whatsapp @ 9300930012 Send your old paper & get 10/-अपने पुराने पेपर्स भैजे और 10 रुपये पाये, Paytm or Google Pay ₹

18036\19000\4

https://www.ccsustudy.com

https://www.ccsustudy.com

https://www.ccsustudy.com

BBA - I Sem.

# **NP-3042**

# B. B. A. Examination, Dec. 2014

# **Financial Accounting**

(BBA-105)

(Old Course-I)

Time: Three Hours]

[Maximum Marks: 75

Note: Attempt questions from all Sections as per instructions. Calculator can be used.

### Section-A

(Very Short Answer Questions)

Answer all the *five* questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.

3×5=15

Define Accounting.

https://www.ccsustudy.com

https://www.ccsustudy.com

What is the difference between Book-keeping and Accounting?

3. What is meant by ledger? Why is it maintained?

4. What are objectives of a trial balance?

State briefly the necessity of providing depreciation.

### Section-B

(Short Answer Questions)

Answer any *two* questions out of the following three questions. Each question carries  $7\frac{1}{2}$  marks. Short answer is required.  $7\frac{1}{2} \times 2=15$ 

https://www.ccsustudy.com

- Prepare a Bank Reconciliation Statement from the following particulars on 30th June, 2012:
   Bank statement showed a favourable balance of Rs. 9,214.
  - On 29th June, 2012 the bank credited the sum of Rs. 1,650 in error
  - (ii) Some cheques valued at Rs. 4,500 issued before 29th June, 2012 were not cleared

NP-3042

https://www.ccsustudy.com

https://www.ccsustudy.com

https://www.ccsustudy.com

# https://www.ccsustudy.com

- (iii) A hire purchase payment of Rs. 950 made by a standing order was not entered in the cash book.
- (iv) A cheque of Rs. 600 received, deposited and credited by bank, was accounted as a receipt in the cash column of the cash book.
- (v) Other cheques for Rs. 8,500 were deposited in June but cheques for Rs. 6,000 only were cleared by the bankers.
- 7. Green Ltd. purchased machinery on 1st May, 2010 for Rs. 60,000. On 1st July, 2011 it purchased another machine Rs. 20,000. On 31st March, 2012, it sold off the first machine purchased in 2010 for Rs. 38,500 and on the same date purchased a new machinery Rs. 50,000. Depreciation is provided at 20% yearly on the original cost each year. Accounts are closed each year on 31st December. Show the Machinery A/c up to 31st December, 2013.
- 8. What are different classes of errors? Which of them do not affect a trial balance?

# Or

From the following items of Receipts and Payment A/c. of Young Club, prepare an Income and Expenditure A/c for the year ended 31st March, 2010:

	Rs.			
Salaries paid	50,000			
Lighting	5,000			
Printing and stationery (including Rs. 500				
for the previous year)	3,500			
Subscription received (including Rs. 2,000				
received in advance and Rs. 5,000 for the				
previous year)	40,000			
Net proceeds of refreshment room	45,000			
Miscellaneous exp.	16,000			
Interest paid on loan for half year	1,200			
Rent and rates (including Rs. 1,000 prepaid)	7,500			
Lockers rent received	4,500			
Subscription in arrears on 31st March, 2010 were				
Rs. 8,000 and half year's interest on loan was also				
outstanding.				

### NP-3042

https://www.ccsustudy.com

https://www.ccsustudy.com

https://www.ccsustudy.com

# NP-3042

(6)

https://www.ccsustudy.com

https://www.ccsustudy.com

NP-3042

(5)

### Section-C

# (Detailed Answer Questions)

Answer any three questions out of the following five questions. Each question carries 15 marks. Answer is required in detail. 15×3=45

- 9. What is goodwill? What are the various methods of valuation of goodwill? Discuss with examples.
- What is Realization Account? How and when is it 10. prepared ? How does it differ from revaluation account?
- Arun, Swati and Geetika are equal partners in a firm. 11. Their Balance Sheet is given below:

Balance Sheet as on 31st Dec. 2009

Liabilities	Rs.	Assets	Rs.
Creditors	18,000	Machinery	20,000
Reserve fund	3,000	Furniture	1,000
Capital:		Debtors	20,000
Arun 10,000		Stock	10,000
Swati 8,000			
Geetika <u>12,000</u>	30,000		
	51,000		51,000

Geetika retired on 31st December, 2009 and assets were revalued as follows:

Machinery Rs. 25,000, Furniture Rs. 800, Debtors Rs. 19,000 and Stock Rs 9,800. Goodwill is valued at Rs. 6,000.

Prepare necessary Accounts and new Balance Sheet.

- Explain the accounting policy relating to stock 12. valuation.
- What are the basic concepts of Financial Accounting? 13. What are their limitations?

https://www.ccsustudy.com Whatsapp @ 9300930012 Send your old paper & get 10/-अपने पुराने पेपर्स भैजे और 10 रुपये पाये,

Paytm or Google Pay से

NP-3042-6-2900

https://www.ccsustudy.com

M (Printed Pages 4)
(20115) Roll No. ......

B.B.A.-I Sem.

# 18041

# B.B.A. Examination, Dec. 2014 FUNDAMENTALS OF MANAGEMENT

(BBA-106)

(New)

Time: Three Hours |

[Maximum Marks: 75

https://www.ccsustudy.com

https://www.ccsustudy.com

Note: Attempt all the Sections as per instruc-

tions.

### Section-A

# (Very Short Answer Questions)

**Note:** Attempt **all** the **five** questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.

 $3 \times 5 = 15$ 

P.T.O.

- "Management is getting things done through other people." Comment.
- What do you mean by Mental Revolution?
- 3. Why the Formal organizational structures are like Pyramides?
- 4. Explain the nature of Co-ordination.
- 5. Describe the features of staffing.

### Section-B

# (Short Answer Questions)

Note: Attempt any two questions out of the following three questions. Each question carries 7½ marks. Short answer is required not exceeding 200 words. 7½×2=15

6. Is Management and Administration are Synonymous?

### 18041\19000\2

https://www.ccsustudy.com

- Explain the limitations of Planning.
- 8. Explain X-Theory of motivation.

### Section-C

# (Detailed Answer Questions)

Note: Attempt any three questions out of the following five questions. Each question carries 15 marks. Answer is required in detail. https://www.ccsustudy.com  $15 \times 3 = 45$ 

- What is Communication? Why Communication is gaining so much importance in Modern industrial world?
- 10. What do you mean by informal organization? Give its special feature, How does it differ from formal organization.
- 11. "Management is the development of people and not the direction of things" Explain the statement.

18041\19000\3 P.T.O.

https://www.ccsustudy.com

https://www.ccsustudy.com

- 12. Critically examine the contribution of Henry Fayol in the field of Mang.
- 13. What is meant by planning? Explain the steps involved in the planning process.

https://www.ccsustudy.com Whatsapp @ 9300930012 Send your old paper & get 10/-अपने पुराने पेपर्स भैजे और 10 रुपये पाये, Paytm or Google Pay ₹

https://www.ccsustudy.com

18041\19000\4

(2)

(20115)

Roll No. .....

B.B.A.-I Sem.

# NP-3041

# B. B. A. Examination, Dec. 2014

### **GENERAL ECONOMICS**

(BBA-104)

(Old Course-I)

[Maximum Marks: 75 Time: Three Hours!

Note: Attempt questions from all Sections as per instructions.

### Section-A

# (Very Short Answer Questions)

Attempt all the five questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.  $3 \times 5 = 15$ 

- Privatisation. 1.
- Cross elasticity of demand. 2.
- Seasonal unemployment. 3.

https://www.ccsustudy.com

https://www.ccsustudy.com

Discriminating monopoly.

Price rigidity. 5.

### Section-B

# (Short Answer Questions)

This Section contains three questions, attempt any two questions. Each question carries 71/2 marks. Short answer is required  $7\frac{1}{2} \times 2 = 15$ not exceeding 200 words.

https://www.ccsustudy.com

- What is basic problem of an economy? 6.
- Examine the relationship between Average Cost (AC) and Marginal Cost (MC).
- Discuss four main points of importance of 8. agriculture.

# Section-C

# (Detailed Answer Questions)

This Section contains five questions, attempt any three questions. Each question carries 15 marks.  $15 \times 3 = 45$ Answer is required in detail.

NP-3041

"India is a rich country inhebited by poor."
 Explain.

- 10. Distinguish between 'Marginal Utility' and 'Total Utility'. 'Total Utility' is maximum when 'Marginal Utility is zero. Do you agree with this statement?
- 11. What is deficit-financing? What are its objectives?
- 12. Discuss the industrial sector reforms undertaken by government since 1991.
- 13. What is production possibility curve? How can it be used to solve the problem? What to produce and how to produce?

https://www.ccsustudy.com Whatsapp @ 9300930012 Send your old paper & get 10/-अपने पुराने पेपर्स भन्ने और 10 रुपये पार्ये, Paytm or Google Pay से

(2)

(20115)

https://www.ccsustudy.com

Roll No. ....

BBA-I Sem.

# **NP-3040**

# B. B. A. Examination, Dec. 2014

# Mathematical Foundation for Business Administration

(BBA-103)

(Old Course-I)

Time: Three Hours] [Maximum Marks: 75

Note: Attempt questions from all Sections as per instructions.

# Section-A

# (Very Short Answer Questions)

Attempt all the *five* questions of this Section.

Each question carries 3 marks. Very short answer is required.

3×5=15

 Find the present value of an annuity due to Rs. 1,000 for five years at the rate of 10% per annum at compound interest. https://www.ccsustudy.com

https://www.ccsustudy.com

,

- 2. If P and Q are two sets such that  $n(P \cup Q) = 75$ ,  $n(P \cap Q) = 17$  and n(P) = 49, find n(Q).
- 3. Integrate  $\int \frac{dx}{1+\cos x}$ .
- 4. Test for the following function for existence of limit:

$$\lim_{x\to 0} \frac{1}{1+e^{1/x}}$$
.

5. Prove that the matrix  $\begin{bmatrix} \cos \alpha & \sin \alpha \\ -\sin \alpha & \cos \alpha \end{bmatrix}$  is orthogonal.

# Section-B

# (Short Answer Questions)

This Section contains three questions, attempt any two questions. Each question carries  $7\frac{1}{2}$  marks. Short answer is required.  $7\frac{1}{2} \times 2 = 15$ 

NP-3040

(4)

6. Prove that:

$$\begin{vmatrix} 1 & \omega & \omega^2 \\ \omega & \omega^2 & 1 \\ \omega^2 & 1 & \omega \end{vmatrix} = 0$$

where  $\omega$  is one of the imaginary cube roots of unity.

- 7. Evaluate  $I = \int \frac{\cos(x-\theta)}{\cos x} dx$ .
- 8. Find the third divided difference with arguments 2, 4, 9, 10 of the function  $f(x) = x^3 2x.$

https://www.ccsustudy.com

### Section-C

# (Detailed Answer Questions)

This Section contains five questions, attempt any three questions. Each question carries 15 marks.

Answer is required in detail.  $15 \times 3 = 45$ 

9. (a) If Ram deposit Rs. 1,000 in his Saving Bank Account at 5% interest compounded annually, what future value at the end of 4 years will get?

# NP-3040

https://www.ccsustudy.com

(b) If  $y^x = x^{\sin y}$ , find  $\frac{dy}{dx}$ .

10. (a) Evaluate 
$$\int \frac{dx}{a + b \cos x}$$
.

(b) Show that 
$$\begin{vmatrix} 1 & a & b+c \\ 1 & b & c+a \\ 1 & c & a+b \end{vmatrix} = 0.$$

- 11. (a) Show that  $\oint_{yz}^{2} x^3 = x + y + z$ .
  - (b) Evaluate  $\lim_{x\to 0} \frac{x-|x|}{x}$ .
- 12. Find the inverse of the matrix  $A = \begin{bmatrix} 2 & 1 & -1 \\ 0 & 2 & 1 \\ 5 & 2 & 2 \end{bmatrix}$ .
- 13. (a) If from a bag of 6 red, 5 white and 4 black balls, two balls are drawn, find probability that none of them is white.
  - (b) Find the maximum and minimum values of the function  $f(x) = x^3 - 2x^2 + x + 6$ .

NP-3040-4-2900

М

(Printed Pages 4)

(20115)

Roll No. .....

B.B.A.-I Sem.

# 18038

# B.B.A. Examination, Dec. 2014 **Principles of Economics** (BBA-103)

(New)

Time: Three Hours ]

[Maximum Marks: 75]

Note: Attempt all the sections as per instructions.

सभी खण्डों को निर्देशानुसारं हल कीजिए।

Section-A / खण्ड-अ

(Very Short Answer Questions) (अति लघु उत्तरीय प्रश्न)

Note: Attempt all the five questions. Each question carries 3 marks. Very short answer is

required not exceeding 75 words.

सभी पाँच प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न 3 अंकों नोट : का है। अधिकतम 75 शब्दों में अति लघु उत्तर अपेक्षित है।  $3 \times 5 = 15$ 

P.T.O.

https://www.ccsustudy.com

https://www.ccsustudy.com

- "Economics is a study of Economics welfare." Explain this statement? "अर्थशास्त्र आर्थिक कल्याण का अध्ययन है।" इस कथन का परीक्षण कीजिए।
- "Rent is not a payment for land but for the land element in a factor". Discuss. "लगान भूमि के लिए भूगतान नहीं है बल्कि वह साधनों में भूमि तत्व के लिए भुगतान है।" विवेचना कीजिए।
- Explain the Law of Demand.

माँग के नियम की व्याख्या कीजिए।

Discuss the nature of Profit. लाभ की प्रकृति का विवेचन कीजिए। https://www.ccsustudy.com

3

Explain fully the law of Diminishing Returns. उत्पत्ति हास नियम को पूर्णतया समझायें।

# Section-B / ব্ৰण্ड-ৰ

# (Short Answer Questions)

(लघु उत्तरीय प्रश्न)

Note: Attempt any two questions out of the following three questions. Each question carries 71/2 marks. Short answer is required not exceeding 200 words.  $7\frac{1}{2} \times 2 = 15$ 

18038\19000\2

नोट : निम्नलिखित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न 7½ अंकों का है। अधिकतम 200 शब्दों में लघु उत्तर अपेक्षित है।

- Explain the Modern theory of Wages.
   मजदूरी के आधुनिक सिद्धान्त की व्याख्या कीजिए।
- 7. "Perfect competition is a myth." Do you agree? Give reasons for your answer." "पूर्ण प्रतियोगिता एक भ्रम है।" क्या आप इससे सहमत हैं? अपने उत्तर की पुष्टि में तर्क दीजिए।
- 8. State and explain fully the Law of Downward Sloping Demand. https://www.ccsustudy.com नीचे को झुकती हुई (या गिरती हुई) माँग के नियम का कथन दीजिए तथा इसको पूर्णतया समझायें।

# Section-C / खण्ड-स

# (Detailed Answer Questions)

# (विस्तृत उत्तरीय प्रश्न)

**Note:** Attempt any **three** questions out of the following **five** questions. Each question carries 15 marks. Answer is required in detail. 15×3=45

18038\19000\3

P.T.O.

# नोट : निम्नलिखित पाँच प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न 15 अंकों का है। विस्तृत उत्तर अपेक्षित है।

- Explain the concept of Consumer's Surplus?
   What are the difficulties in its measurement?
   उपभोक्ता की बचत की अवधारणा का विवेचन कीजिए।
   इसको मापने में क्या कठिनाईयाँ हैं?
- 10. Discuss the nature of Production functions. उत्पादन फंक्शन के स्वभाव की विवेचना कीजिए।
- 11. Explain the concept of Equilibrium in Economics.

अर्थशास्त्र में साम्य के विचार को समझायें।

- 12. Define the concept of Elasticity of Demand. How is it measured? Give suitable diagrams to illustrate your answer. माँग की लोच के विचार की परिभाषा दीजिये। इसे कैसे मापा
  - मॉग की लीच के विचार की परिभाषा दीजिये। इसे कैसे मा जाता है? उपयुक्त रेखाचित्रों द्वारा उत्तर स्पष्ट कीजिए।
- 13. "Rent is a reward for specificity". Critically examine this statement.
  "लगान विशिष्टता का पारितोषण होता है।" इस कथन की विवेचना कीजिए।

# 18038\19000\4

https://www.ccsustudy.com

(20115)

Roll No. .....

B. B. A.-I Sem.

# **NP-3038**

# B. B. A. Examination, Dec. 2014

# Principles of Management

(BBA-101)

### (Old Course-I)

Time: Three Hours]

https://www.ccsustudy.com

[Maximum Marks: 75

Note: Attempt questions from all Sections as per instructions.

# Section-A

# (Very Short Answer Questions)

Attempt all the five questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.  $3 \times 5 = 15$ 

- How can strategies be implemented effectively? 1.
- Differentiate between long-term and short-term 2. planning.

https://www.ccsustudy.com

https://www.ccsustudy.com

(2)

3. Communication should be one may or two way in any business organization. Explain.

4. Explain the essential characteristics of decisionmaking.

5. Explain management by objective (MBO).

### Section-B

# (Short Answer Questions)

Attempt any two questions out of the following three questions. Each question carries 71/2 marks. Short answer is required not exceeding 200 words. 7½×2=15

https://www.ccsustudy.com

- 6. What do you mean by coordination? Why is coordination called as essence of management?
- 7. What is delegation? Point out the factors that affect delegation of authority?
- 8. What do you understand by organization structure? Discuss its importance.

NP-3038

https://www.ccsustudy.com

https://www.ccsustudy.com

### Section-C

# (Detailed Answer Questions)

Attempt any *three* questions out of the following five questions. Each question carries 15 marks. Answer is required in detail.

15×3=45

- 9. What is motivation? Why has the Maslow theory of needs been criticized? To what extent if any is it valid?
- 10. What do you mean by communication? Give the features of one effective communication.
- 11. How will you define leadership as a process of influence? What are its various features?
- Explain the concept of management and discuss its functions.
- 13. What are the essential features of a good plan? How can planning be made effective?

(2)

(20115)

https://www.ccsustudy.com

Roll No. ....

BBA-I Sem.

# **NP-3040**

# B. B. A. Examination, Dec. 2014

# Mathematical Foundation for Business Administration

(BBA-103)

(Old Course-I)

Time: Three Hours] [Maximum Marks: 75

Note: Attempt questions from all Sections as per instructions.

# Section-A

# (Very Short Answer Questions)

Attempt all the *five* questions of this Section.

Each question carries 3 marks. Very short answer is required.

3×5=15

 Find the present value of an annuity due to Rs. 1,000 for five years at the rate of 10% per annum at compound interest. https://www.ccsustudy.com

https://www.ccsustudy.com

,

- 2. If P and Q are two sets such that  $n(P \cup Q) = 75$ ,  $n(P \cap Q) = 17$  and n(P) = 49, find n(Q).
- 3. Integrate  $\int \frac{dx}{1+\cos x}$ .
- 4. Test for the following function for existence of limit:

$$\lim_{x\to 0} \frac{1}{1+e^{1/x}}$$
.

5. Prove that the matrix  $\begin{bmatrix} \cos \alpha & \sin \alpha \\ -\sin \alpha & \cos \alpha \end{bmatrix}$  is orthogonal.

# Section-B

# (Short Answer Questions)

This Section contains three questions, attempt any two questions. Each question carries  $7\frac{1}{2}$  marks. Short answer is required.  $7\frac{1}{2} \times 2 = 15$ 

NP-3040

(4)

6. Prove that:

$$\begin{vmatrix} 1 & \omega & \omega^2 \\ \omega & \omega^2 & 1 \\ \omega^2 & 1 & \omega \end{vmatrix} = 0$$

where  $\omega$  is one of the imaginary cube roots of unity.

- 7. Evaluate  $I = \int \frac{\cos(x-\theta)}{\cos x} dx$ .
- 8. Find the third divided difference with arguments 2, 4, 9, 10 of the function  $f(x) = x^3 2x.$

https://www.ccsustudy.com

### Section-C

# (Detailed Answer Questions)

This Section contains five questions, attempt any three questions. Each question carries 15 marks.

Answer is required in detail.  $15 \times 3 = 45$ 

9. (a) If Ram deposit Rs. 1,000 in his Saving Bank Account at 5% interest compounded annually, what future value at the end of 4 years will get?

# NP-3040

https://www.ccsustudy.com

(b) If  $y^x = x^{\sin y}$ , find  $\frac{dy}{dx}$ .

10. (a) Evaluate 
$$\int \frac{dx}{a + b \cos x}$$
.

(b) Show that 
$$\begin{vmatrix} 1 & a & b+c \\ 1 & b & c+a \\ 1 & c & a+b \end{vmatrix} = 0.$$

- 11. (a) Show that  $\oint_{yz}^{2} x^3 = x + y + z$ .
  - (b) Evaluate  $\lim_{x\to 0} \frac{x-|x|}{x}$ .
- 12. Find the inverse of the matrix  $A = \begin{bmatrix} 2 & 1 & -1 \\ 0 & 2 & 1 \\ 5 & 2 & 2 \end{bmatrix}$ .
- 13. (a) If from a bag of 6 red, 5 white and 4 black balls, two balls are drawn, find probability that none of them is white.
  - (b) Find the maximum and minimum values of the function  $f(x) = x^3 - 2x^2 + x + 6$ .

NP-3040-4-2900

(2)

(20115)

https://www.ccsustudy.com

Roll No. ....

BBA-I Sem.

# **NP-3040**

# B. B. A. Examination, Dec. 2014

# Mathematical Foundation for Business Administration

(BBA-103)

(Old Course-I)

Time: Three Hours] [Maximum Marks: 75

Note: Attempt questions from all Sections as per instructions.

# Section-A

# (Very Short Answer Questions)

Attempt all the *five* questions of this Section.

Each question carries 3 marks. Very short answer is required.

3×5=15

 Find the present value of an annuity due to Rs. 1,000 for five years at the rate of 10% per annum at compound interest. https://www.ccsustudy.com

https://www.ccsustudy.com

,

- 2. If P and Q are two sets such that  $n(P \cup Q) = 75$ ,  $n(P \cap Q) = 17$  and n(P) = 49, find n(Q).
- 3. Integrate  $\int \frac{dx}{1+\cos x}$ .
- 4. Test for the following function for existence of limit:

$$\lim_{x\to 0} \frac{1}{1+e^{1/x}}$$
.

5. Prove that the matrix  $\begin{bmatrix} \cos \alpha & \sin \alpha \\ -\sin \alpha & \cos \alpha \end{bmatrix}$  is orthogonal.

# Section-B

# (Short Answer Questions)

This Section contains three questions, attempt any two questions. Each question carries  $7\frac{1}{2}$  marks. Short answer is required.  $7\frac{1}{2} \times 2 = 15$ 

NP-3040

(4)

6. Prove that:

$$\begin{vmatrix} 1 & \omega & \omega^2 \\ \omega & \omega^2 & 1 \\ \omega^2 & 1 & \omega \end{vmatrix} = 0$$

where  $\omega$  is one of the imaginary cube roots of unity.

- 7. Evaluate  $I = \int \frac{\cos(x-\theta)}{\cos x} dx$ .
- 8. Find the third divided difference with arguments 2, 4, 9, 10 of the function  $f(x) = x^3 2x.$

https://www.ccsustudy.com

### Section-C

# (Detailed Answer Questions)

This Section contains five questions, attempt any three questions. Each question carries 15 marks.

Answer is required in detail.  $15 \times 3 = 45$ 

9. (a) If Ram deposit Rs. 1,000 in his Saving Bank Account at 5% interest compounded annually, what future value at the end of 4 years will get?

# NP-3040

https://www.ccsustudy.com

(b) If  $y^x = x^{\sin y}$ , find  $\frac{dy}{dx}$ .

10. (a) Evaluate 
$$\int \frac{dx}{a + b \cos x}$$
.

(b) Show that 
$$\begin{vmatrix} 1 & a & b+c \\ 1 & b & c+a \\ 1 & c & a+b \end{vmatrix} = 0.$$

- 11. (a) Show that  $\oint_{yz}^{2} x^3 = x + y + z$ .
  - (b) Evaluate  $\lim_{x\to 0} \frac{x-|x|}{x}$ .
- 12. Find the inverse of the matrix  $A = \begin{bmatrix} 2 & 1 & -1 \\ 0 & 2 & 1 \\ 5 & 2 & 2 \end{bmatrix}$ .
- 13. (a) If from a bag of 6 red, 5 white and 4 black balls, two balls are drawn, find probability that none of them is white.
  - (b) Find the maximum and minimum values of the function  $f(x) = x^3 - 2x^2 + x + 6$ .

NP-3040-4-2900