VUG (6)—BCA (C-6002)
Prin. of Mgt.

2016-19

Full Marks : 70

Time : 3 hours

Answer from all the Sections as directed.

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

SECTION—A

Answer any *four* questions 10 × 4

1. Define Management. Discuss its importance and functions.

2. Write a brief note on Management as an Art and a science both.

3. What is Management skills ? Explain levels of Management.

4. What do you understand by Strategic Management ? Discuss the role of different Strategist in Management.

(*Turn Over*)

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5. What do you understand by Motivation ? Discuss the importance of Motivation.

6. Explain the qualities and function of Leader.

7. Discuss the contribution of F. W. Taylor to the Management thought.

8. What do you mean by Business Ethics ? Discuss tools of ethics.

SECTION—B

All questions are compulsory 3 × 10

1. Define social responsibility concept.

2. Define nature of Management.

3. Define Importance of Planning.

4. Explain barriers to effective planning.

5. Define Delegation of Authority.

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6. Discuss principles of Communication.

7. Define TQM (Total Quality Management) ?

8. What do you understand by co-ordination ? Explain its needs.

9. Define Techniques of decision making process.

10. What is stress ? How stress can be managed ?

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Total Pages : 5

VUG (6)—BCA (C-6001)
Opt. Tech.

2016-19

Full Marks : 70

Time : 3 hours

Answer any **five** questions.

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

SECTION—A

Answer any *four* questions

1. Discuss about characteristic of operation Research and its various models. 10

2. An agriculturist has a farm with 125 acres. He produces Radish, Muttar and Pottato. Whatever he raises is fully sold in the market. He gets Rs. 5 for Radish per kg, Rs. 4 for Muttar per kg and Rs. 5 for Pottato per kg. The average yield is 1,500 kg of Radish per acre, 1,800 kg of Muttar per acre and 1,200 kg of Pottato per acre. To produce each 100 kg of Radish and Muttar and to produce each 80 kg of Pottato, a sum of Rs. 12.50

(*Turn Over*)

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has to be used for manure. Labour required for each acre to raise the crop is 6 man-days for Radish and Pottato each and 5 man-days for Muttar. A total of 500 man-days of labour at a rate of Rs. 40 per man-day are available. Formulate this as a Linear programming model to maximize the Agriculturist's total profit. 10

3. Use the graphical method to solve the following L.P.P : 10

Maximize $Z = 2x_1 + 3x_2$

S. to

$x_1 + x_2 \leq 30$

$x_1 - x_2 \geq 0$

$x_2 \geq 3$

$0 \leq x_1 \leq 20$ and $0 \leq x_2 \leq 12$

4. Use simplex method to maximize $Z = 5x_1 + 3x_2$

S. to constraints

$x_1 + x_2 \leq 2$

$5x_1 + 2x_2 \leq 10$

$3x_1 + 8x_2 \leq 12$

and $x_1, x_2 \geq 0$ 10

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5. Solve the following transportation problem : 10

To

	9	12	9	6	9	10	5
	7	3	7	7	5	5	6
From	6	5	9	11	3	11	2
	6	8	11	2	2	10	9
	4	4	6	2	4	2	22

6. Solve the following Assignment problem : 10

Job

		1	2	3	4	5
	A	8	4	2	6	1
	B	0	9	5	5	4
Persons	C	3	8	9	2	6
	D	4	3	1	0	3
	E	9	5	8	9	5

7. Given the following information :

Activity	0-1	1-2	1-3	2-4	2-5	3-4	3-6	4-7	5-7	6-7
Duration (in days)	2	8	10	6	3	3	7	5	2	8

(*i*) Draw the arrow diagram

(*ii*) Identify critical path and find the total project duration. 10

27

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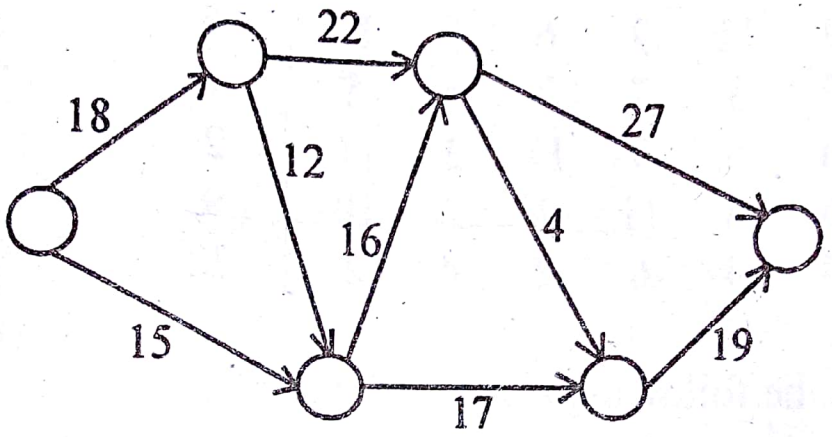
8. Determine the critical path and critical path time 10



SECTION—B

(Compulsory)

Answer any *ten* questions 3 × 10

9. (*a*) Define PERT.

(*b*) Discuss about Network.

(*c*) What is Mathematical Model ?

(*d*) Write transportation Algorithm.

(*e*) What is the importance of L.P.P ?

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(*f*) Write an application of operation Research.

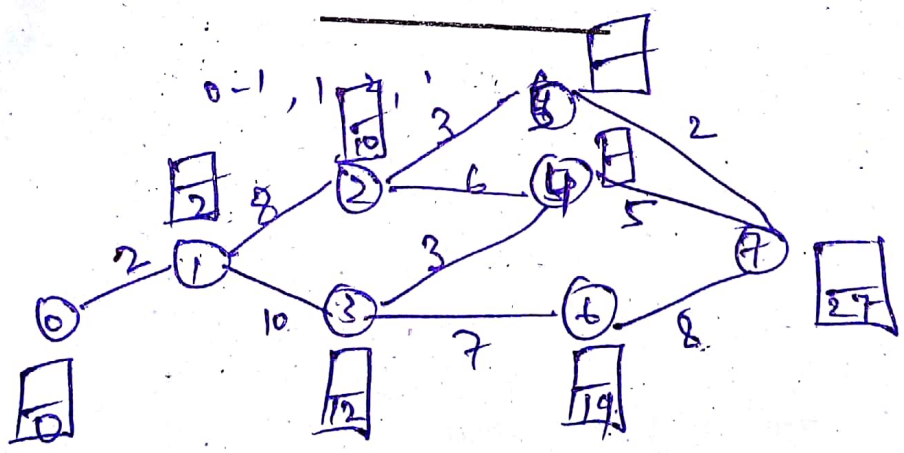
(*g*) Define optimization.

(*h*) Write about Mathematical formulation

(*i*) Define basic feasible solution.

(*j*) What are the difference between transportation and Assignment solution of problems.

(*k*) Write about initial solution.



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VUG (6)—BCA (C-6004)
Comp. Network Sec.

2016-19

Full Marks : 70

Time : 3 hours

Answer from all the Sections as directed.

Candidates are required to give their answers in their own words as far as practicable.

SECTION—A

Answer any *four* questions and each carries 10 marks :

1. Explain general model for Network Security.

2. Explain working principle of Kerberos for authentication service.

3. What is IP security ? Explain application and benefits of IP security.

4. Explain the importance of key management of IP security. Also explain different types of key management.

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5. How encapsulating security payload helps in Encryption and Authentication ? Explain briefly.

6. Explain web security and its requirement. Explain different types of web security threats and secure socket layer (SSL).

7. What is secure electronic transaction (SET) ? Explain requirements and key features of SET.

8. Explain Intruders and different intrusion techniques. Also explain different ways to protect intrusion.

SECTION—B

All questions are compulsory and each carries 3 marks :

9. Explain Intrusion detection system in short.

10. Write short note on Trap doors and Trojan horses.

11. Explain different types of viruses.

12. What is Firewall ?

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13. Explain IP address spoofing.

14. What is Cryptography ?

15. Explain security threat.

16. What is Payload header ?

17. Explain Access control.

18. What is confidentiality ?

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VUG (6)—BCA (C-6003)
A/c & Fin. Mgt.

2016-19

Full Marks : 70

Time : 3 hours

Answer from all the Sections as directed.

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

SECTION—A

Answer any *four* questions out of eight questions : 10 × 4

1. What is the need of Accounting ? Explain different types of Accounting.

2. What do you mean by Accounting Standard ? Explain and illustrate fully.

3. What is Balance Sheet ? How do you deal with it in consolidated balance sheet ?

4. What do you mean by Trial Balance ? Explain errors disclosed by trial balance.

(*Turn Over*)

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5. Explain Journal and Sub-Journal in detail with example.

6. Explain Profit and Loss Account with example.

7. Explain Journal and Ledger with suitable example. Also give comparision between Journal and Ledger.

8. Give the Journal entries of following transactions :

2017		
April 1	Started business with cash	2,00,000
2	Goods sold to Mohan in cash	15,000
3	Goods purchased from Arun	30,000
5	Received payment for bill	2,000
6	Deposited into bank	18,000
7	Purchased office equipment	4,500
8	Paid salaries	20,000
10	Rent paid	8,000
12	Cash withdrawn from bank for personal cell	2,000
13	Advertising expenses	3,000

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SECTION—B

Answer *all* questions : 3 × 10

1. What are the characteristics of Financial Accounting ?

2. Explain Double Entry system.

3. Explain rules for Debit and Credit.

4. What is a company ? How do we create company in Tally ?

5. What is opening balance and closing balance in account ?

6. What are the function of finance manager ?

7. Explain Assets and Liabilities with example.

8. Explain Personal, Real and Nominal Account.

9. Explain bills receivable book and bills payable book.

(*Turn Over*)

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10. What do you mean by Accounting Vouchers ? Explain its types.

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VUG (6)—BCA (E-6006)
Mgt. Infor. Sys.

2016-19

Full Marks : 70

Time : 3 hours

Answer from **all** the Sections as directed.

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

SECTION—A

Answer *all* the questions : 3 × 10

1. What are different types of information ?

2. What is organization structure ?

3. What are common elements of any system ?

4. What is cost-based evaluation of MIS ?

5. What is use of Decision tree ?

(*Turn Over*)

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6. Differentiate between 'Decision' and 'Decision Making'.

7. Why we need conceptual design of MIS ?

8. Differentiate between corrective and adaptive maintenance.

9. What are informal systems ?

10. What is financial MIS ?

SECTION—B

Answer any *four* questions : 10 × 4

1. Discuss the role of MIS in various phases of decision making.

2. With the help of Diagram, explain the concept of DSS.

3. What is meant by system analysis ? Discuss its main functions.

4. What is MIS ? Explain why MIS system is needed and where ?

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5. Explain supply chain management system in detail with one real time example.

6. Elaborate in detail classification and value of information.

7. Explain in detail DSS system and its roles in organization.

8. Explain how information systems impact on organization and business firms.

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