

College of Applied Business (CAB)

Sent-up Examination, February 2015

BIM / BBA / First Semester / MGT 201: Principles of Management

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

Section 'A'

Time: 20 minutes

Brief answer questions:(Attempt any ten questions)

[10 × 1=10]

1. Define management.
2. Illustrate the system's view of an organization through a figure.
3. Write the full form of CPM and PERT.
4. List the various pitfalls of planning.
5. List the steps in proper decision making.
6. What is staffing?
7. Describe TQM in one sentence.
8. List any two differences between planning and decision making.
9. List the various skills required to be a manager.
10. Define organizing.

Section 'B'

Time: 30 minutes

Short answer questions:(Attempt ANY TWO questions.)

[2 × 5=10]

11. What is management? Explain the various roles that a manager should perform in any organization.
12. What is quality? Explain the various dimensions of quality.
13. Define planning? How can planning be improved in an organization?
14. What is Total Quality Management? Explain the various concepts of TQM.
15. What is controlling? What are the various essentials of effective control system? Explain.

Section 'C'

Time: 80 minutes

16. Comprehensive answer questions.

New Horizon Ltd. and Gurans Ltd.

New Horizon Nepal Ltd. is subcontracting company that carries out activities for other companies. New Horizon is the prime contractor for FNCCI's Entrepreneurship Development Program. Under this program, New Horizon Nepal Ltd. provides a variety of services like training, good communication, open and honest meetings and other IT trainings required for running small business smoothly.

New Horizon Nepal Ltd. won the contract for training in districts of Darchula, Kavre, and Saptari districts. The contract started in January 2013 and runs to March 2014. New Horizon is using a mix of subcontractors: their own branches, other third party organizations, the public sector and one private sector subcontractor. The contract for Saptari has been subcontracted to Gurans Ltd. Manpower Limited and other contracts are provided to various other partners. The overall contract is for approximately 4,000 placements, and is in the order of Rs. 400 million. Gurans Ltd. is likely to provide approximately 800 placements. New Horizon's branches did not have the capacity to take on the project, but identified Gurans Ltd. as a suitable partner. It had worked with Gurans Ltd. previously and some of Gurans Ltd.'s staff had come from New Horizon.

New Horizon, because of their own experience of being delivery partners, wanted to offer subcontractors a good deal, and was therefore keen to make the relationship a partnership rather than that just of prime and subcontractor. For example, managers set up full briefing sessions for all subcontractors immediately after hearing that the bid had been successful. There are now quarterly meetings between New Horizon and all their subcontractors. New Horizon also provides a fortnightly email update which discusses changes in policy and what is working well in different areas.

In leading the partnership, New Horizon seeks suggestions from their partners. Good relationship management has been the key factor for success of New Horizon. Open and honest meetings that people look forward to attending are another factor. Gurans Ltd. describes New Horizon as very helpful, with a very professional approach and as delivering excellent guidance. Initial anxieties on the part of New Horizon in working with a partner which is a lead provider elsewhere have been relieved by the supportive and helpful approach of Gurans Ltd..

Answer the following questions:

[4 × 5 = 20]

- a) In order to create good manager amongst various entrepreneurs, what kinds of skills should New Horizon attempt to teach? Explain.
- b) All the managers should attempt to become a good leader. In order to become a good leader, what are the qualities should managers of New Horizon have? Explain.
- c) If you were the CEO of New Horizon what techniques would you use to motivation of employees of New Horizon as well as keep a good relationship with Gurans Ltd..
- d) Conduct a hypothetical SWOT analysis for either New Horizon or Gurans.

College of Applied Business (CAB)

Sent-up Examination, February 2015

BIM / First Semester / IT 211: Computer Information Systems

Students are required give their answers in their own words as far as practicable

Section "A"

Time: 20 minutes

Brief answers questions. ANY TEN.

[10×1=10]

1. List the factors that you consider while purchasing a computer?
2. What happens when cash miss ratio will be greater than cash hit?
3. Define iteration with appropriate example.
4. In which phase of SDLC, Decision tree and DFD (data flow diagram are used) are created?
5. What does www.cab.edu.np mean?
6. Why is HTTP protocol used?
7. Why is foreign key used?
8. Define Artificial Intelligence.
9. Why Device driver is required in computer System?
10. Differentiate between GIF and PNG image format
11. Differentiate between Sequential and Random File processing
12. What is Optical Fiber?

Section "B"

Time: 30 minutes

Short answers questions.

[3×3=9]

13. What is Genetic Algorithm? Explain the phases of Genetic Algorithm.
14. What is language translator? Describe all the language translator in brief
15. What is computer network? Describe the computer network on the basis of size.

Section "C"

Time: 70 minutes

Short answers questions.

[2×3=6]

16. What is data mining? Explain the phases of Data processing.
17. What is Primary memory? Describe types of RAM

Long answers questions.

[3×5=15]

18. What is System Development life cycle? Explain the Implementation phase and types of Documents prepared During SDLC life cycle.
19. Describe about Guided Media and Unguided Media of Communication.
20. You are given with following information. Draw a flowchart to show the design of the attendance system and marks obtain by the students

Attendance	Marks
Students having attendance above or equal to 95 %	10 marks
Students having less than 95% but more or equal to 90%	5 marks
Students having Less than 95% but more or equal to 85%	2 marks
Students having Less than 90% but more than or equal to 80%	0 marks
Students having less than 80%	Not Qualified (NQ)

College of Applied Business (CAB)

Sent-up Examination, February 2015

BIM / First Semester / IT 212: Digital Logic

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

Section 'A'

Time: 20 minutes

Brief answer questions:

[10×1=10]

1. How many flip flops are required to design MOD-16 counter?
2. How do you construct an INVERTER using four input NOR gate?
3. Why flipflops are called bistable device
4. How many flip flops are required to generate a 7 Hz pulse from 56 Hz pulse?
5. A Demultiplexer is having 5 select lines. How many input lines does it have?
6. A flip-flop is presently in the RESET state and must go to the SET state on the next clock pulse. What must J and K be?
7. If a 10 bit ring counter has the initial state 1001110000, determine the state after fifth clock pulse?
8. Simplify: $A'B'C'+ABC'+ABC$ using Boolean algebra.
9. Express the decimal number -46 as an 8 bit binary number in the 2's complement system.
10. What is the minimum number of inverters required to find the 1's complement of $(101011100)_2$

Section 'B'

Time: 30 minutes

Short Answer Questions:

[2×4=8]

11.
 - a) If $A=156$ and $B=65$, then calculate $(-A) + (-B)$ using 2's complement concept.
 - b) What is Encoder? Design the 4×16 decoder using 3×8 decoder.
12. Design 3-bit asynchronous binary counter.

Section 'C'

Time: 70 minutes

Short Answer Questions:

[3×4=12]

13. Make distinction between SR and JK flip-flop along with its circuit diagram, characteristic equation, excitation table and characteristic table.
14. You are provided with a bit sequence 110 to operate with Serial In/Out register. Describe the store and retrieve mechanism with supportive diagram and also draw the timing diagram.
15. Design 3 bit gray code counter using JK flip-flops.

Long Answer Questions:

[2×5=10]

16. Simplify following function using K- map:

$$F(w,x,y,z) = \sum m (0,1,2,4,8,9,12,14) \text{ with don't care condition } d(w,x,y,z) = \sum (6,10)$$

- a) AND-OR-NOT gate
 - b) Minimum number of NOR gates.
 - c) Minimum number of NAND gates.
17. Design a synchronous sequential circuit using JK flip flop with one input A and an output B. The input A is a serial message and the system reads A one bit at time. The output $B=1$ whenever the pattern 001 is encountered in the serial message.
For example:
if input : 00010111001
then output : 0001000001

College of Applied Business (CAB)

Sent-up Examination, February 2015

BIM / First Semester / ENG 201: English Composition

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

Section A

Time: 20 min

1. Brief answer questions: (Attempt ALL) [5×1=5]
 - a. What is “Ellipsis”? Illustrate with an example.
 - b. Give the group nouns for the following:
Cards; Soldiers
 - c. Which words are stressed in the following sentence: “This bed has not been slept in.”
 - d. Give **two** example sentences of “forward-pointing.”
 - e. Give **two** example sentences of “temporary habit.”

Section B

Time: 30 min

2. Read the following passage and answer the questions given below:

A Free Miracle Food!

Mopti, Mali Can you name a miracle food that is universally available, free and can save children’s lives and may even make them smarter? That’s not a trick question. There really is such a substance, now routinely squandered, that global health experts believe could save more than 800,000 lives annually. While you’re puzzling over the answer, let me tell you, how I just saw it save a life here in West Africa.

I’m on my annual win-a-trip journey, in which I take a university student along with me so we can report on global poverty. The winner, Erin Luhmann of the University of Wisconsin, and I randomly stopped in a village near the Malian town of Mopti to ask about food shortages. Then we spotted a baby boy was starving to death. The infant, only 3 weeks old, was wizened from severe malnutrition and had the empty, unresponsive face of child shutting down everything else to keep his organs functioning. The teenage mother, Seyda Allaye, said that she didn’t have much milk and that the baby wasn’t nursing well. She saw that he was dying and that morning had invested in cow’s milk in hopes of saving him. Erin and I had a vehicle, so we offered to take her and her son to a hospital to see if doctors could save his life. At the “The mother doesn’t know how to breast-feed properly,” said the doctor, Amidou Traore, “We see lots of cases of child mortality like this.” Dr. Traore repositioned Seyda Allaye’s arm, helped the infant latch on to her breast, and the baby came alive. And there’s the answer to my opening question. The latest nutritional survey from The Lancet estimates that suboptimal breast-feeding claims the lives of 804,000 children annually. That’s more than the World Health Organization’s estimate of malaria deaths each year. Look, I realize that there’s something patronizing about a man griping about poor breast-feeding practices, and, in the West, the issue is linked to maternity leaves and other work practices. But, if we want to save hundreds of thousands of lives, maybe a step forward is to offer more support to moms in poor counties trying to nurse their babies.

Questions:

[5×2=10]

- a. What and where did the speaker and his travel mate observe during the journey break?
- b. How was the condition of 3-week baby in the speaker’s eyes?
- c. Seyda Allaye had invested in cow’s milk, but why?
- d. Which was the miracle practice the doctor had introduced, and how?
- e. Which maternity miracle drug does the speaker argue for saving babies in West Africa?

OR

What is the nutritional survey of the Lancet?

[10]

3. Draft a long paragraph of notice in **impersonal style** to the library students to return the books on time. [5]
4. Change the following sentences according to the **instructions** given at the end of sentences. (ANSWER ALL) [10]
- Can I suggest we adjourn the meeting? (**tactful**)
 - He tried hard. He failed. (**link into one sentence with coordination and subordination**)
 - We finished breakfast. We went for a walk. (**into one sentence in coordinate clauses**)
 - Mary wanted it. John gave it away. (**adverbial link**)
 - The sentence '*I don't really mind waiting*' **means**:
 - I don't mind at all
 - I mind very much.
 - I do mind but not too much.
 - I really don't mind waiting.
 - The sentence "*How do you do?*" has a
 - fall-rise tone; b) rising tone; c) falling tone; d) rise-fall tone.
 - Only one of the sentences below is <BrE>. Which is it?
 - The tour lasted from July through September.
 - Did you eat your breakfast already?
 - They suggested that Smith be dropped from the team.
 - They're taking a very different attitude from their employers.
 - One of the following sentences illustrates a Mass Noun. Which one is it?
 - Would you like a meal?;
 - There is too much traffic on the road.;
 - She's looking for a new job. ;
 - There is too much vehicles on the road.
 - In the sentence "Here's a cup of tea for you", the Nucleus falls on
 - cup; b) tea; c) for ; d) you.
 - "He went home but the door was locked." (How many Tone Units does this sentence have?)
5. Write an essay on "**Digital Technology**" [10]

OR

"Science and Reality"

College of Applied Business (CAB)

Sent-up Examination, February 2015

BIM / First Semester / MTH 201: Basic Mathematics

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

Section "A"

Time: 20 minutes

Brief answer question.

[6×1=6]

1. If $n(\cup) = 125$, $n(A) = 80$, $n(B) = 65$, find the least value of $n(A \cup B)$.
2. Express $\frac{i}{1+i}$ in polar form.
3. Test the continuity of the function $f(x) = \frac{1}{\sqrt{x}}$.
4. Find $\frac{dy}{dx}$ of $y = \log\left(\frac{1}{x}\right)$
5. Find x if $\vec{a} = 2\vec{i} + x\vec{j} - \vec{k}$ and $\vec{b} = 4\vec{i} + 2\vec{j} - 2\vec{k}$ are orthogonal.
6. Find A^{-1} if $A = \begin{bmatrix} 0 & 1 \\ 1 & 2 \end{bmatrix}$

Section "B"

Time: 30 minutes

Comprehensive answer questions.

[2×5=10]

7. Suppose a toy manufacturer has fixed cost of \$ 5,000. In addition, there are variable cost per toy.
 - a. Find the total cost function at a production level of x toys.
 - b. How many toys may be produced at a cost of \$ 10,000?
 - c. Suppose the selling price of a toy is \$ 10, find the profit function.
 - d. Find the profit generated by 8,000 toys
 - e. If the revenue from the production and sales of some toys is \$ 7,000, what is the corresponding profit.

8. A manufacturer produces three products A, B and C, which he sells in two markets.

Annual sales volumes are indicated as follows:

Markets	Products		
	A	B	C
I	12,000	19,000	3,000
II	5,500	7,500	18,500

- a. If Unit sale price of A, B and C are Rs. 5, Rs. 2 and Rs. 3 respectively, find the total revenue in each market.
- b. If Unit cost of the above three commodities are Rs. 3.50, Rs. 1.75 and Rs. 2.25 respectively, find the gross profit.

Section "C"

Short answer question.

Time: 80 minutes

[6×4=24]

9. An ice cream shop sold three types of ice cream A, B and C out of 1000 customers questioned, 470 liked A, 300 liked B, 350 liked C, 130 liked A and B, 120 liked A and C, 70 liked B and C, 50 liked all three. How many liked
- A and B only
 - A and C only
 - A only
 - Exactly two types of ice creams.
10. State De-Moivre's theorem and use it to find square roots of $-1 - i\sqrt{3}$.
11. Evaluate: $\lim_{x \rightarrow \infty} \sqrt{x}(\sqrt{x+1} - \sqrt{x})$
12. Find unit vector perpendicular to each of the vectors $\vec{a} = \vec{i} + 3\vec{j} + 2\vec{k}$, $\vec{b} = 2\vec{i} + 4\vec{j} + \vec{k}$ and also find Sine of the angle between them.
13. Find $\frac{dy}{dx}$ of $f(x) = e^{x/3}$ (using first principle)
14. Solve by Gaussian elimination method:
- $$2x - y + z = 1$$
- $$x - 2y + 3z = 4$$
- $$4x + y + 2z = 4$$