N

(21216)

Roll No. ....

BCA- I Sem.

18003

B. C. A. Examination, Dec. 2016

Principles of Management

(BCA-104)

(New Course)

Time : Three Hours] [*Maximum Marks : 75*

Note : Attempt questions from all Sections as per instructions.

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

1. Differentiate between centralization and decentralization.

2. What are the barriers to effective communication?

3. How does environment affect organizational change?

4. Explain any two business strategies.

5. What are the various leadership styles?

Section-B
(Short Answer Questions)

Answer 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. What do you understand by 'Management by Objectives'?

7. What is the role of controlling in an organization?

8. What are the skills required by manager at different levels?

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. Critically analyze the 'Hierarchy of Needs' theory.

10. What is the need for delegation of authority? What difficulties may arise in delegation?

11. What do you understand by the term 'strategy'? How are companies changing their strategies to compete in new business environment?

12. Explain the need and importance of coordination in an organization.

13. How can change be successfully managed in an organization? Explain with the help of any suitable model.

18003-2

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(21216) Roll No. ....

B.C.A.-I Sem.

18004

B.C.A. Examination, Dec. 2016

Business Communication

(BCA-106)

(New Course)

Time : Three Hours] [Maximum Marks : 75

Note : Attempt questions from all Sections as per instructions.

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

1. Comment on the importance of mock interviews.

2. List out the principles of good listening.

3. What is the main purpose of circular letters?

4. Give two limitations of Facsimile as a tool for communication.

5. Give two precautions that must be taken while writing a report.

Section-B

(Short Answer Questions)

Answer 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. Write a circular letter intimating the change of address to customers.

7. What is art of listening? Explain the principles of good listening.

8. Explain the purpose and importance of (i) E-mail and (ii) Voice-mail.

18004

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. Write brief comments on the following:
    (i)   Video conferencing
    (ii) Dictaphone
    (iii) Grapevine.

10. (a) Explain the purpose and importance of teleconferences.

    (b) "Brevity at its best." Elucidate the essentials of a good business letter.

11. (a) Imagine you are a new intern in a reputed IT firm. What precautions would you take while preparing an oral report?

    (b) Discuss in detail the 7C's communication.

12. (a) Comment on the importance of public address system.

    (b) Explain the various techniques of effective public speaking.

13. (a) What are challenges of group decision-making? How can one overcome these challenges?

    (b) State and explain merits and limitations of Written Communication.

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(21216)   Roll No. ....
BCA-I Sem.

18005

B. C. A. Examination, Dec. 2016

MATHEMATICS-I

(BCA-101)

(New Course)

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

1. Show that $A = \begin{bmatrix} ab & b^2 \\ -a^2 & -ab \end{bmatrix}$ is nilpotent matrix of order 2.   3

2. If $y = \log[\log(\log x)]$, find $\dfrac{dy}{dx}$.   3

3. Evaluate $\displaystyle\int \dfrac{(a^x - b^x)^2}{a^x b^x} dx$.   3

4. Calculate the area of parallelogram spanned by the vectors $a = (3, -3, 1)$ and $b = (4, 9, 2)$.   3

5. Evaluate $\displaystyle\lim_{n \to \infty} \dfrac{\Sigma n^2}{n^3}$.   3

Section-B

(Short Answer Questions)

Attempt any *two* questions out of the following three questions. Each question carries 7½ marks. Short answer is required.   7½×2=15

6. Find the rank of the matrix $\begin{bmatrix} 1 & 2 & 3 & 2 \\ 2 & 3 & 5 & 1 \\ 1 & 3 & 4 & 5 \end{bmatrix}$.   7½

7. Evaluate $\displaystyle\int \dfrac{3x+1}{(x-1)^2(x+3)} dx$.   7½

18005

8. Expand $\sin x$ in power of x and hence find $\sin 18°$ upto four decimal places.   7½

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. (a) Show that $\lim\limits_{x \to 0} \dfrac{e^{1/x} - 1}{e^{1/x} + 1}$ does not exist.   5

    (b) Examine the continuity of the function at the indicated point. Also point out the type of discontinuity; if any :   10

$$f(x) = \begin{cases} \dfrac{e^{1/x} - e^{-1/x}}{e^{1/x} + e^{-1/x}} & \text{if } x \neq 0 \\ 0 & \text{if } x = 0 \end{cases} \quad \text{at } x = 0.$$

10. Verify Cayley-Hamilton theorem for the matrix :

$$A = \begin{bmatrix} 2 & -1 & 1 \\ -1 & 2 & -1 \\ 1 & -1 & 2 \end{bmatrix}$$

and hence find A^{-1}. Also state the Cayley-Hamilton theorem.   15

18005

11. Trace the curve $y^2 = (x-1)(x-2)(x-3)$.   15

12. (a) If $I_n = \int_0^{\pi/4} \tan^n x \, dx$; prove that $I_{n-1} + I_{n+1} = \dfrac{1}{n}$. Deduce the value of I_5.   10

    (b) Evaluate $\int \dfrac{xe^x}{(x+1)^2} \, dx$.   5

13. If $y = \sin(m \sin^{-1} x)$, $|x| < 1$; prove that :

    (a) $(1-x^2)y_2 - xy_1 + m^2 y = 0$ 5

    (b) $(1-x^2)y_{n+2} - (2n+1)xy_{n+1} + (m^2 - n^2)y_n = 0$

    and find value of $y_n(0)$.   10

18005-4-

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(21216)   Roll No. ....

B. C. A. -I Sem.

18002

B. C. A. Examination, Dec. 2016

Programming Principles & Algorithm

(BCA-102)

(New Course)

Time : Three Hours]   *[Maximum Marks : 75*

Note : Attempt questions from all Sections as per instructions.

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

1.   What do you understand by 'call by value' ?

2.   What do you understand by C tokens ?

3.   What do you understand by swapping ?

4.   What is preprocessor directives ?

5.   Why C language is known as procedural language ?

Section-B

(Short Answer Questions)

Answer 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.   Write a program in C to find out the number is even/odd.

7.   Define flow chart. Draw a flow chart to find out the number is positive or not.

8.   Write a program in C for recursion.

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 do you understand by problem solving techniques ? Explain divide and conquer.

10.   Why time complexity is an important issue ? Explain.

11.   Write a program to find out whether the given number is odd or even.

12.   What is header files ? Explain with its types.

13.   What is function ? Explain with its examples.

18002-2-

Section-B
(Short Answer Questions)

Answer 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. Write a program in C to find out the number is even/ odd.

7. Define flow chart. Draw a flow chart to find out the number is positive or not.

8. Write a program in C for recursion.

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 do you understand by problem solving techniques ? Explain divide and conquer.

10. Why time complexity is an important issue ? Explain.

11. Write a program to find out whether the given number is odd or even.

12. What is header files ? Explain with its types.

13. What is function ? Explain with its examples.

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(21216)   Roll No. ....

B.B.A./B.C.A./B.J.M.C.

NP-3440

B.B.A./B.C.A./B.J.M.C./Etc.

Examination, Dec. 2016

ENVIRONMENTAL STUDIES

(BBA/BCA/BJMC/Etc.-008)

Time : Three Hours]   *[Maximum Marks : 100*

Note : Attempt questions from **all** sections as per instructions.

नोट : सभी खण्डों से निर्देशानुसार प्रश्न हल कीजिए।

Section - A

खण्ड - अ

Note: Answer **all** the **five** questions. Each question carries **4** marks. Very short answer is required not exceeding 75 words.

नोट : सभी पाँच प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न 4 अंकों का है। अधिकतम 75 शब्दों में अति लघु उत्तर अपेक्षित है।

4×5=20

P.T.O.

1.   AIDS

एड्स

2.   Ecological Pyramids

पारितन्त्रीय पिरामिड

3.   Soil Pollution

मृदा प्रदूषण

4.   Forest conservation act

वन संरक्षण अधिनियम

5.   Pond Ecosystem

तालाब पारितन्त्र

Section - B

खण्ड - ब

Note : Answer any **two** questions out of the following 3 questions. Each question carries **10** marks. Short answer is required not exceeding 200 words.   10×2=20

नोट : निम्नलिखित 3 प्रश्नों में से किन्हीं **2** का उत्तर दीजिए। प्रत्येक प्रश्न 10 अंकों का है। अधिकतम 200 शब्दों में लघु उत्तर अपेक्षित है।

6.   Describe Energy flow in Ecosystem.

पारितन्त्र में ऊर्जा के प्रवाह का वर्णन कीजिए।

NP-3440\2

7. Define plant succession and describe Xerosere in detail.

   पादप अन्डक्रमण की परिभाषा दीजिए तथा मरूक्रमक का विस्तार से वर्णन कीजिए।

8. Write about the importance of rain water harvesting.

   वर्षा जल के एकत्रीकरण के महत्व का वर्णन कीजिए।

Section - C
खण्ड - स

Note: Answer any **3** questions out of the following 5 questions. Each question carries **20** marks. Answer is required in detail.

$$20 \times 3 = 60$$

नोट : निम्नलिखित पांच प्रश्नों में से किन्हीं 3 प्रश्नों का उत्तर दीजिए। प्रत्येक प्रश्न 20 अंकों का है। विस्तृत उत्तर अपेक्षित है।

9. Define pollution and describe air pollution in detail.

   प्रदूषण की परिभाषा लिखिए तथा वायु प्रदूषण का विस्तृत वर्णन कीजिए।

10. Write an essay on Importance of forest.

    वन के महत्व पर निबन्ध लिखिए।

11. What do you understand by resource conservation? Discuss the problems and principles of it.

    संसाधन संरक्षण से आप क्या समझते हैं? उनके संरक्षण की समस्याओं तथा सिद्धान्तों का वर्णन कीजिए।

12. Write short notes on any **two** of the following:

    (a) Green house effect

    (b) Acid rain

    (c) Family Welfare Programme in India

    निम्नलिखित में से किन्हीं **दो** पर टिप्पणी लिखिएः

    (a) ग्रीन हाउस प्रभाव

    (b) अम्ल वर्षा

    (c) भारत में परिवार कल्याण कार्यक्रम

13. Write an essay on Mineral resources.

    खनिज संसाधनों पर निबन्ध लिखिए।