BIM / Sixth Semester / IT 224: Software Engineering

Candidates are required to answer all the questions in their own words as far as practicable.

Group “A”

1. Brief Answer Questions: [10 \times 1 = 10]
   i. What is safety-critical system?
   ii. What do you mean by test cases?
   iii. Why is sequence diagram made?
   iv. What is database design?
   v. Define software.
   vi. Write any one task done in the feasibility study.
   vii. What are the advantages of re-use oriented software engineering?
   viii. What is the use of “architectural models” in a software?
   ix. Define the term refactoring.
   x. Why are graphical models used? Write any one reason.

Group “B”

Exercise Problems: [5 \times 4 = 20]

2. Write a set of values used to test a function written in JAVA that checks whether the given integer number (size: 4 bytes) is prime or not.

3. You need a software that stores the data about people like: name, date of birth, gender, height, weight and also facilitates users to see the records of either males only or females only; see records of a person with height or weight greater than the given information; see the records of people with the given date of birth. Now write Use case diagram for this software.

4. Write any four requirements for online banking software.

5. Write the necessary characteristics of sociotechnical systems for developing secure and dependable system.

6. Write a task card for medical dose checking.

Group “C”

Comprehensive Questions: [2 \times 5 = 10]

7. Why is the dependability of a software system considered to be more important than detailed functionality of the system? Explain.

8. Why agile methods are used for program evolution as well as program development? Explain.

(Note: The students should not limit themselves to the chapters mentioned in this Model Questions as questions can be asked from any chapter (within the syllabus) in the examination.)
Candidates are required to answer all the questions in their own words as far as practicable.

Group “A”

1. Brief Answer Questions: $[10 \times 1 = 10]$
   i. Define the concept of trusted system.
   ii. Differentiate between security and safety.
   iii. List the threats that are enabled by E-mail.
   iv. Differentiate between Passive attack and active attack.
   v. Define the term Plagiarism.
   vi. Differentiate between TLS and SSL.
   vii. Define virtual machine.
   viii. Encipher the plaintext "TUEXAM" into ciphertext by using the Caesar Cipher.
   ix. Define Inference control.
   x. What is Cyberbullying?

Group “B”

Short Answer Questions: $[5 \times 4 = 20]$

2. How will you configure your router to allow only specified computers to access Internet?
3. Define IDS. Explain Distributed Intrusion Detection System (DIDS).
4. Encrypt given sentence using any one of the encryption algorithm, “Hello World from Security”.
5. Define firewall and list its type. Explain how firewall protects the network.
6. Write short notes on:
   a) virus
   b) Web of trust

Group “C”

Comprehensive Questions: $[2 \times 5 = 10]$

7. Explain SSL handshake protocol in detail.
8. What do you think, is it ethical for students or teachers to access Internet in the classroom while taking class? Explain with appropriate reasons. If you think it is unethical then how can you stop students or teachers from accessing Internet in the classroom?

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Candidates are required to answer all the questions in their own words as far as practicable.

Group “A”

1. Brief Answer Questions: [10 × 1 = 10]
   i. List the limitations of e-commerce.
   ii. Define Bluetooth.
   iii. List the name of three email clients.
   iv. What is use of SSL?
   v. What do you mean by digital wallet?
   vi. List the names of three social media sites.
   vii. What is use of firewalls?
   viii. Define I-way.
   ix. Write full form of SLEPT.
   x. Define B2C commerce.

Group “B”

Short Answer Questions: [5 × 4 = 20]

2. Explain how social media sites can be used for marketing?
3. What are the online facilities provided by bank on Nepal?
4. Why is it necessary to understand the legal factors for the implementing e-commerce by organizations?
5. Why Intranet can be of value of for the business organizations?
6. Explain how the message is encrypted.

Group “C”

Comprehensive Questions: [2 × 5 = 10]

7. Explain the scope and barriers to Internet adoption for people in Nepal.
8. Explain how a newly established organization can set up e-commerce web site.

(Nota: The students should not limit themselves to the chapters mentioned in this Model Questions as questions can be asked from any chapter (within the syllabus) in the examination.)
BBA / Sixth Semester / RCH 201: Business Research Methods

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

Group “A”

Brief Answer Questions: [10 × 1 = 10]

1. State the key objectives of basic research.
2. What is positivism?
3. State any two objectives of literature review.
4. If any issue is in abstract form, to clarify that issue which research design do you use? Give reason in one sentence.
5. Show a major difference between validity and reliability.
6. When do you use random sampling in research?
7. Write any two uses of secondary data.
8. Why do you use two different tools i.e. mean and mode to calculate central tendency?
9. Write the preconditions for the use of regression models.
10. Manage the following two references in APA format.
   b. Annual report of 2016 published by Everest Bank Ltd.

Group “B”

Short Answer Questions: [6 × 5 = 30]

11. Discuss the process of scientific research.
12. Do you think descriptive research design is superior than experimental research design to undertake research in the field of management? Give reasons to support your answer.
13. “Various approaches of research are used in practice while undertaking research in different research issues”. In light of this statement discuss the approaches of research, and the conditions for applying them.
14. What is sampling? How do you select sample for a research study?
15. Empirical study of attitude and behavior of human being is considered to be very difficult. But it is essential to study the behavior of the people empirically so as to increase the reliability and validity of the research. In the light of the above statement, discuss the various tools that are used to measure the attitude and behavior of the people.
16. Describe the different parts of a research report.
Group “C”

Comprehensive Answer Questions: [4 × 5 = 20]

17. Read the following text carefully and answer the questions given below:

A group of BBA graduates of Tribhuvan University wants to establish an investment company, an emerging concept in Nepalese business sector. They contributed Rs 2,000,000 each and formed the capital of rupees one cror. But all of them were raw in practice and they did not have sufficient skill in the field of investment but they have plenty of knowledge regarding investment gained from the class room activities. Some experts who already worked in the field suggested them that to invest in the real estate sector. Some other suggested that to invest in the stock market because it gives capital gain in short period of time and the recent situation of stock market is good in Nepal. Some other suggested that to take the help of experts. They remarked that single sector investment is very risky in Nepal because the policy of the government is not stable. Change in the government leads to the change in the investment policies. If single negative statement is issued by the Nepal Rastra Bank or government the real estate and stock market of Nepal collapses. So, it is better to appoint portfolio experts and take a decision for investment. They have already appointed some experts and appointing more experts is also not easy to them because it increases the cost substantially. So they are in dilemma and decided to conduct research to find out the new field of invest and to start new venture rather than investing money in the already known sector of investment. So, they decided to hire you as the researcher.

Questions:

a. Develop the statement of the problem from the above situation.

b. Develop any three hypotheses from the given situation for conducting research.

c. What research design would you follow to conduct the research in the above issues? Also explain the reasons of using that research design.

d. State the population of the study and what method of sampling do you use to undertake the research? Develop any two sample questions for collecting data.

(Note: The students should not limit themselves to the chapters mentioned in this Model Questions as questions can be asked from any chapter (within the syllabus) in the examination.)