

University Institute of Engineering & Technology

(Recognised Under Section 2(f) and 12B of UGC)

Kurukshetra University, Kurukshetra

THEORY EXAMINATION – JANUARY, 2021

TIME – 3.15 Hrs.

B.TECH - CSE

SEMESTER – V

M.M. - 56

PAPER–PC-CS-305

SUBJECT – ESSENTIAL OF INFORMATION TECHNOLOGY

INSTRUCTIONS TO BE FOLLOWED

- Allotted time for examination is 3 hours 15 minutes that includes time for downloading the question paper, writing answers, scanning of answer sheets and E-mailing the PDF files to the designated Email ID.
- For CSE-A Regular Students, the Email ID is:- btech5thcsea@kuk.ac.in
- For CSE-B Regular Students, the Email ID is:- btech5thcseb@kuk.ac.in
- The candidates will be required to attempt 75% of the question paper (maximum) by choosing to their any best questions accumulating 56 marks.
- The PDF files should be saved as Roll No. and Subject Code. Proper attention should be given while sending the email and in the subject line, the Roll Number and Subject Code should be mentioned.
- Maximum Page Limit should be 20 (Twenty) for attempting the question paper on A4 sheets which could be downloaded and printed from the sample sheets given in the Kurukshetra University Examination guidelines.
- Over-attemptation should be avoided.
- Handwriting should be neat and clean and diagrams should be clear and contrasted.
- The candidate should not write their Mobile No. otherwise Unfair Means Case will be made.
- While attempting the paper, the candidate will use blue/black pen only.
- Before attempting the paper, the candidate will ensure that he/she has downloaded the correct question paper. No complaint for attempting wrong question paper by the candidate will be entertained.
- Candidate must ensure that he/she has put his/her signature on each page of the answer sheet used by him/her. Answer sheet without the signature of the candidate will not be evaluated.

PART-A

Q. No. – 1 Answer the following questions.

15x1=15

(i)	What should be the execution order, if a class has a method, static block, instance block and constructor.
(ii)	What is used to find and fix bugs in the java programs.
(iii)	What is the return type of the hash code() method in the object class.
(iv)	What do you mean by object class.
(v)	Which keyword is used for accessing the features of a package.
(vi)	What is the purpose of static methods and static variables.
(vii)	Does importing a package import its sub-packages as well in java.
(viii)	Write the name of different states of a thread.
(ix)	In java thread programming, which method is a must implementation for all threads.
(x)	Which API is provided by java for operations on a set of objects.
(xi)	Why vector class is used in java.
(xii)	What is the difference between swing and AWT components.
(xiii)	What are the applications of JDBC.
(xiv)	What do you understand by hashing.
(xv)	What is the base class of all exception classes.

PART-B

2	Why java is robust programming language. Explain.	5
3	Write a swing program that creates a GUI for the order form. The order form should contain the following fields: Text boxes to store the customer name, quantity of product and price of the product. Combo box to select product name (from the list of products specified in the list) Buttons, one to submit data and another to clear the fields. Note: all input fields should be supported by appropriate labels. Event: GUI design should handle window closing() event.	5
4	Explain the concept of multithreading in java. Write a program showing multiple threads working upon single object using synchronized keyword.	5
5	Explain the different types of drivers in JDBC.	5

PART-C

6	What is exception handling in java. Write a program to handle number format exception.	10
7: i)	Explain the use of super keyword with suitable example.	5
ii)	Define wrapper class in java. Also explain the concept of boxing and unboxing.	5
8: i)	How we can achieve styled text in swing. Explain by giving suitable example.	5
ii)	Explain Jtable in swing with the steps of creating a table.	5
9: i)	Write short notes on tabbed panes and scroll panes in swing.	5
ii)	How to handle events in swing. Describe in brief.	5

10: i)	Why servlet are preferred over CGI. Explain in detail.	5
ii)	Define servlet. Explain the life cycle of servlet.	5
11:i)	Write short note on cookie class. Also explain the concept of cookie class by giving suitable example.	5
ii)	Write a servlet code to develop a simple calculator.	5
12: i)	What do you understand by JDBC. Explain the architecture of JDBC with a neat and clean diagram.	5
ii)	Write and explain the steps for java database connectivity.	5
13: i)	What is result set meta data. Explain with example.	5
ii)	Explain any two SQL exception in JDBC.	5