

Do print English.

JAYPEE UNIVERSITY OF INFORMATRION TECHNOLOGY, WAKNAGHAT
SUMMER SEM MID TERM EXAMINATION- 2018

B.Tech V Semester

COURSE CODE: 08B51CI101

MAX. MARKS: 50

COURSE NAME: Software Testing & Debugging

COURSE CREDITS: 04

MAX. TIME: 2 HR

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Please note that detailed explanation is required in answer of question 1. Vague answers will credit to zero marks

1. Justify the following statements with suitable programming examples and reasoning.

- "Black box testing is necessary but not sufficient for thorough testing"
- Difference between error, fault and failure? Explain testing life cycle?
- Explain the importance of experience based testing over robust testing?
- What are various Static Software Testing & Techniques?
- What are principals of testing and their limitation with example?

[2 X 5=10 Marks]

2. Consider a program where we have a variable "Pay" having a valid range of inputs as 12000 to 35000. Amount of Tax is calculated by the program with following assumptions:

- Pay up to a sum of Rs. 15000 – Tax Value is Zero
- Pay from 15001 to 25000 – Tax value is 18 % of Pay
- Pay above 25000 – Tax value is 20% of Pay

Find the valid and invalid equivalence classes for the variable "Pay". Also find the corresponding equivalence class test cases for the above problem.

[10 Marks]

3. Admission to a professional course is subject to the following conditions:

Marks in Math	60
Marks in physics	50
Marks in chemistry	40
Total of all three subject	200
Or	
Total in Math and Physics >=	150

If aggregate marks of an eligible candidate are more than 225, he/she will be eligible for honors courses, otherwise he/she will be eligible for pass course. The program reads the marks in the three subjects and generates the following outputs:

(a)Not Eligible

(b)Eligible to Pass Course

(c)Eligible to Honors Course

Design decision table and cause effect graph.

[10 Marks]

4. In a system designed to work to find the retirement date of the employee with following inputs:

Inputs are name, gender, age ranging from [1-85], date of joining and date of birth.

Output of the system is the retirement date of the employee

Design following test suits

- BVA
- Robust BVA
- Worst BVA
- Find the number of cases in robust worst BVA.

[10 Marks]

5. Explain V MODEL & Modified V Model and their importance? Explain the advantages of v Model over convention software testing model?

[10 Marks]

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