Introduction

Peregrine Academic Services, the higher education division of Peregrine Global Services, provides assessment services for performing direct assessment of learning outcomes for several academic disciplines. The online exams are used to evaluate retained student knowledge in relation to the academic program's learning outcomes.

This document outlines supplemental topics specifically designed for use by higher education institutions in India to complement the Global Business Education comprehensive exam. These supplemental topics may be used for undergraduate and graduate students.

These supplemental topics are designed for use by India-based schools and programs.

Validity and Reliability

Peregrine Academic Services places a high priority on ensuring the validity and reliability of the assessment services. These practices begin at the design stage and continue through beta-testing, and with ongoing regularly scheduled quality reviews. A summary of these approaches is provided at the end of this document. For additional information regarding the reliability process, please refer to the following peer-reviewed article:

> Oedekoven, O. O., Napolitano, M., Lemmon, J., & Zaiontz, C. (2019). Determining test bank reliability. *Transnational Journal of Business, 4*(Summer), 63-74.

Testing Process

The exams include 10 questions for each exam topic. Each exam is unique as questions are selected at random from the test bank of over 200 questions per topic. Institutions select the topics to be included in the exam to align with the learning outcomes and program curriculum.

Available Exam Topics

The specific topics for this assessment service that are available for use with a customized assessment are:

- India-Specific Accounting
- India-Specific Business Finance
- India-Specific Legal Environment of Business

Subjects and Example Questions

The following pages include the specific subjects included with the topics along with example questions for the topic. These specific questions have been inactivated within the test bank and are shown in this document only to illustrate the types of questions that are presented to learners.

Test bank questions are written and proofed by terminally degreed, subject matter experts from accredited institutions who have teaching experience with the specific discipline. The criteria for a test bank question include:

- Test questions may be questions or (incomplete) statements.

- All multiple-choice format with 4 possible responses and only one correct response.

- All responses must be plausible and not misleading.

- "All of the Above" (or similar) or "None of the Above" or "A & C" responses are not used.

- All incorrect responses are assigned Response Distractors:

Response Distractor	Student's response indicates they…
Fact-based error	…do not know the fact(s).
Concept-based error	…misunderstood the concept.
Conclusion-base error	…reached an incorrect conclusion.
Interpretation-based error	…incorrectly interpreted the question.
Calculation-based error	…made an error with a math-related calculation.

India-Specific Accounting

Subjects

- **Accounting for Decision Making**
- **Accounting for Merchandising Activities**
- **Basic Financial Statements**
- **Bonds and Long-Term Notes Payable**
- **Cash Flow Analysis**
- **Corporate Reporting: Dividends, Shares, and Income**
- **Cost-Volume-Profit Analysis**
- **Current and Long-Term Liabilities**
- **Financial Assets**
- **Financial Statement Analysis**
- **Long-Term Investments and International Accounting**
- **Merchandise Inventories**
- **Organization and Operation of Corporations**
- **Receivables**
- **Reporting Financial Results**

Example Questions

Arguments that the cost principle is not a satisfactory basis for the valuation of assets in financial statements are usually based on:

A. the lack of objective evidence to permit verification of cost data.

B. increased availability and capacity of computers.

C. stronger internal control structures.

D. continued inflation.

Correct Response: D

India-Specific Accounting

Example Questions

Priya sells a product for Rs.6.25. The variable costs are Rs.3.75. Priya's break-even units are 35000. What is the amount of fixed costs?

    A. Rs.87500

    B. Rs.35000

    C. Rs.131250

    D. Rs.104750

Correct Response: A

India-Specific Business Finance

Subjects

- **Accounts Receivable and Inventory Management**
- **Capital Budgeting Principles and Techniques**
- **Capital Structure Determination**
- **Cash and Marketable Securities Management**
- **Cost of Capital and Required Returns**
- **Risk and Return**
- **Short-Term Financing**
- **The Business, Tax, and Financial Environments**
- **The Role of Financial Management**
- **The Time Value of Money**
- **The Valuation of Long-Term Securities**
- **Working Capital Management**

Example Questions

Interest payments, principal payments, and cash dividends are _____ the typical budgeting cash-flow analysis because they are _____ flows.

- A. included in; financing
- B. excluded from; financing
- C. included in; operating
- D. excluded from; operating

Correct Response: B

India-Specific Business Finance

Example Questions

The Convenience Foods Company relies on preferred stock, bonds, and common stock for its long-term financing. Rank in ascending order (1 = lowest, 3 = highest) the likely after-tax component costs of the company's long-term financing.

    A. 1 = bonds; 2 = common stock; 3 = preferred stock.

    B. 1 = bonds; 2 = preferred stock; 3 = common stock.

    C. 1 = common stock, 2 = preferred stock, 3 = bonds.

    D. 1 = preferred stock; 2 = bonds; 3 = common stock.

Correct Response: B

India-Specific Legal Environment of Business

Subjects

- **Contract Law**
- **Criminal Law**
- **Employment Law**
- **Ethics and the Law**
- **Insurance Contracts**
- **Legal Foundations**
- **Negotiable Instruments**
- **Product Liability**
- **Property Law**
- **Sales and Transfer of Goods**

Example Questions

A contract in which obligation of the parties is outstanding and a contract in which the obligation is to be performed in future are respectively called:

A. Executory and bilateral.

B. Executory and unilateral.

C. Unilateral and executory.

D. Bilateral and executory.

Correct Response: D

Which one of the following methods will result in the most rapid transfer of the collateral to the creditor if the debtor defaults?

A. Repossession.

B. Pledge.

C. Mortgage foreclosure.

D. Civil damage lawsuit.

Correct Response: B

Assessment Service Validity and Reliability

The programmatic assessment services provided by Peregrine Academic Services, the higher education division of Peregrine Global Services, are used to assess retained knowledge of students at various academic degree levels. Schools deploy these services to evaluate the effectiveness of their academic programs, identify areas for improvement, and demonstrate program outcomes to external stakeholders.

Peregrine places a high priority on ensuring the validity and reliability of the assessment services. These practices begin at the design stage and continue through beta-testing, and with ongoing regularly scheduled quality reviews. The following outlines the approaches used to ensure ongoing validity and reliability.

> *Validity* refers to the extent to which the test banks and the services measure the phenomena under consideration.

> *Reliability* refers to the extent to which the exam results are repeatable and therefore data sets can be compared over time.

Design Features that Impact Validity and Reliability

The following features apply to all assessment services.

- Exam scoring is 100% objective using automated marking.

- Each exam viewed by a student is unique using a random selection of questions from the test bank in random topic order.

- Each exam has timed response periods for questions. When the user navigates away from the exam screen, the screen fades, a message appears informing the user that he/she has left the exam window and the questions are timed.

- Students are unable to copy/paste from the exam window.

- Abandoned exams are excluded from summary reports.

Ensuring Ongoing Validity and Reliability

Validity

To ensure test bank validity, the following measures were adopted when the initial test banks were created. The same principles are used with subsequent changes to the test banks.

- The specific accreditation or certification requirements related to learning outcomes evaluation were used to determine the topics and subjects for the test banks.

- Current teachings for each topic were considered regarding the foundational level of each test bank.

- Exam questions were written and reviewed by academic professionals within each discipline. Similar subject matter experts are used with subsequent editing and for new questions.

- Each topic has questions designated for 4-8 subjects per topic to help ensure appropriate breadth of coverage and allow for specific learning outcomes measurement.

- Exam responses are either correct or incorrect, with only one possible right choice. Scores are determined by summarizing the percent correct: per subject, per topic, and by total score.

<u>Reliability</u>

Peregrine contracted with external experts to design a comprehensive and statistically sound approach to measuring assessment service reliability. A *Reliability Report* is generated for each assessment service for its scheduled periodic review. The report generates data for several reliability metrics and the data for each are compared with acceptability criteria to determine which test questions should be modified or replaced.

Subject matter experts in the field are then contracted to modify/replace the targeted questions. Hence, the assessment service is regularly reviewed and improved to ensure ongoing reliability.

Reliability is determined by measuring *Item Difficulty*, *Item Discrimination,* and *Question Interchangeability.*

Item Difficulty refers to the percentage of students who answer questions correctly. Data are generated by topic and for each question. The target Item Difficulty is 60 percent correct with an acceptable range of 35–80 percent.

Item Discrimination refers to how well a question distinguishes between those students with more knowledge (higher overall exam scores) from those with less knowledge. Two measures are used: *Discrimination Index* and *Point-Biserial Correlation*.

For a given question, the Discrimination Index compares the scores of students with high overall test scores with students with low overall test scores. The scale is -1 to +1, with higher values indicating that a given question better distinguishes between high and low performing students. A value of ≥ 0.20 is considered acceptable. Point-Biserial Correlation is equal to Pearson's Correlation Coefficient between the scores on the entire exam and the scores on a specific question. A score of ≥ 0.10 is considered acceptable. When assessing the quality of questions, both the Discrimination Index and the Point-Biserial Correlation Coefficient are reviewed.

Question Interchangeability refers to the ability to substitute a question in the test bank with another without significantly affecting the total score that an individual would receive on the exam. This is determined using Cohen's Effect Size *d* calculated based on a two-tailed *t*-test comparing the total score for all students who had that question in their exam versus the total score of the students who did not have that question in their exam. The scale is 0 - 1.0, and a score of < 0.20 is considered acceptable.