Mock Aptitude Test – Advanced Excel & Macros

This Mock Aptitude Test contains 50 questions (20 MCQs, 15 Case-based, 15 VBA Coding) tailored for MBA Finance students preparing for roles in Finance & Strategy and Legal & Compliance.

Section A: Advanced Excel – MCQs (20 Qs)

Q1. Which formula returns the 2nd largest sales value in range B2:B50?

- (a) =MAX(B2:B50,2)
- (b) =LARGE(B2:B50,2)
- (c) =RANK(B2:B50,2)
- (d) =INDEX(B2:B50,2)

(b) Correct. LARGE(range,k) returns the k-th largest value.

Q2. In financial modeling, XLOOKUP is preferred over VLOOKUP because:

- (a) It can search left as well as right
- (b) It is faster
- (c) It works only with sorted data
- (d) It ignores errors

(a) Correct. XLOOKUP searches left/right, handles errors, and is robust.

Q3. Which function calculates CAGR (Compound Annual Growth Rate)?

- (a) =RATE(years,0,-Begin,End)
- (b) =IRR(range)
- (c) =NPV(rate,values)
- (d) =FV(rate,years,pmt,pv)

(a) Correct. RATE calculates CAGR given begin, end, years.

Q4. In compliance data, which function flags duplicate Contract IDs?

- (a) =UNIQUE(A2:A100)
- (b) =COUNTIF(A2:A100,A2)>1
- (c) =IF(A2:A100=duplicate,"Yes")
- (d) =ISNA(A2:A100)

(b) Correct. COUNTIF>1 means duplicate.

Q5. Which Excel feature lets you track historical changes?

- (a) Conditional Formatting
- (b) Goal Seek
- (c) Track Changes / Version History
- (d) Data Validation

(c) Correct. Track Changes/Version History keeps audit trail.

Q6. Formula to calculate % variance = (Actual – Budget)/Budget in C2?

- (a) =(B2-A2)/A2
- (b) =(A2-B2)/A2
- (c) =(A2-B2)/B2
- (d) =(B2-A2)/B2

(a) Correct. % variance = (Actual – Budget)/Budget.

Q7. Which Excel formula ensures Expiry Date ≥ Today?

- (a) =IF(A2>TODAY(),"Valid","Expired")
- (b) =IF(TODAY()>A2,"Expired","Valid")
- (c) =DATEDIF(A2,TODAY(),"d")
- (d) =ISDATE(A2)

(a) Correct. Compare EndDate with TODAY().

Q8. What is the maximum number of rows in Excel 365?

- (a) 65536
- (b) 1048576
- (c) 1000000
- (d) 2097152

(b) Correct. Excel supports 1,048,576 rows.

Q9. To remove all spaces (except single spaces) in client names:

- (a) =SUBSTITUTE(A2," ","")
- (b) =TRIM(A2)
- (c) =CLEAN(A2)
- (d) =REMOVE(A2)

(b) Correct. TRIM removes extra spaces.

Q10. Which financial function calculates Present Value of ₹1,000 received after 3 years at 10%?

- (a) =PV(10%,3,0,1000)
- (b) =FV(10%,3,0,-1000)
- (c) =NPV(10%,1000)
- (d) =IRR(1000)

(a) Correct. PV = FV/(1+r)^n.

Q11. To highlight top 10% employees by score:

- (a) Conditional Formatting → Equal To
- (b) Conditional Formatting → Top/Bottom → Top 10%
- (c) Sort & Filter
- (d) Goal Seek

(b) Correct. Built-in CF rule highlights Top %.

Q12. To get last non-empty value in column A:

- (a) =LOOKUP(2,1/(A:A<>""),A:A)
- (b) =INDEX(A:A,COUNTA(A:A))
- (c) =OFFSET(A1,COUNTA(A:A))
- (d) =MATCH(MAX(A:A),A:A,0)

(a) Correct. LOOKUP with condition finds last entry.

Q13. Which chart is best for compliance status (Active, Pending, Closed)?

- (a) Column Chart
- (b) Line Chart
- (c) Pie Chart
- (d) Scatter Plot

(c) Correct. Pie chart shows proportions of categories.

Q14. Formula to count contracts expiring in next 30 days (dates in B2:B100)?

- (a) =COUNTIFS(B2:B100,">="&TODAY(),B2:B100,"<="&TODAY()+30)
- (b) =COUNTIF(B2:B100,TODAY()+30)
- (c) =SUM(B2:B100<TODAY()+30)
- (d) =DATEDIF(TODAY(),B2:B100,"d")

(a) Correct. COUNTIFS checks range between Today & Today+30.

Q15. Formula to check if a Vendor in A2 exists in VendorMaster!A:A:

- (a) =MATCH(A2,VendorMaster!A:A,0)
- (b) =IF(COUNTIF(VendorMaster!A:A,A2)>0,"Yes","No")
- (c) =VLOOKUP(A2,VendorMaster!A:A,1,0)
- (d) =IFNA(A2)

(b) Correct. COUNTIF checks presence.

Q16. Formula to calculate Weighted Average Cost of Capital (WACC)?

- (a) =SUMPRODUCT(Weights,Costs)
- (b) =AVERAGE(Weights,Costs)
- (c) =SUM(Weights*Costs)/SUM(Weights)
- (d) =MULTIPLY(Weights,Costs)

(a) Correct. WACC = $\sum$(Weight × Cost).

Q17. Which formula returns 3rd occurrence of "Ross" in A2:A50?

- (a) =INDEX(B2:B50,SMALL(IF(A2:A50="Ross",ROW(A2:A50)-ROW(A2)+1),3))
- (b) =VLOOKUP("Ross",A2:B50,2,0)
- (c) =MATCH("Ross",A2:A50,0)
- (d) =COUNTIF(A2:A50,"Ross")

(a) Correct. Array formula with SMALL finds nth match.

Q18. Formula to calculate IRR for cash flows in C2:C8?

- (a) =NPV(C2:C8)
- (b) =IRR(C2:C8)
- (c) =RATE(C2:C8)
- (d) =ROI(C2:C8)

(b) Correct. IRR is used for periodic cash flows.

Q19. Which tool finds unknown interest rate when PV, FV, n are known?

- (a) Solver
- (b) Goal Seek
- (c) Scenario Manager
- (d) Forecast Sheet

(b) Correct. Goal Seek adjusts input until output=target.

Q20. Formula to remove non-printable characters in client names?

- (a) =TRIM(A2)
- (b) =CLEAN(A2)
- (c) =REPLACE(A2)
- (d) =ISERROR(A2)

(b) Correct. CLEAN removes non-printable characters.

Section B: Case-Based Questions (15 Qs)

Q21. You have monthly P&L data across 12 sheets (Jan–Dec). How would you consolidate into one sheet dynamically?
 Answer: Use **Power Query / VBA consolidation macro** → Loop through all sheets, copy data into master sheet.

Explanation: Manual copy is inefficient. Macro/Power Query automates consolidation.

Q22. A compliance manager wants to check which contracts are "Expired" if EndDate < TODAY. How will you build a dashboard?

Answer: Add a column: =IF(EndDate<TODAY(),"Expired","Active"), use PivotTable for counts by status, add slicers.

Q23. A finance analyst has 1M+ transaction rows. Report is slow. How do you optimize?

Answer: Avoid volatile functions, use PowerPivot model, store calculations in DAX, turn off AutoCalc, load data via Power Query.

Q24. Company wants to calculate rolling 30-day average stock price. Formula?

Answer: =AVERAGE(OFFSET(B2,ROW(B2:B100)-ROW(B2),0,30,1)) or use PowerPivot AVERAGEX(DATESINPERIOD()).

Q25. Vendor audit requires a log of all changes. How would you implement in Excel?

Answer: VBA macro to capture change event (Worksheet_Change) → log old/new values with timestamp & username in "AuditLog" sheet.

Q26. Monthly compliance data in 10 Excel files. Manager wants an automated report. Approach?

Answer: Use VBA loop to open each file, copy into master sheet, or use Power Query "Folder Combine" function.

Q27. If Actual vs Forecast variance >20%, CFO wants cells highlighted. Approach?

Answer: Use **Conditional Formatting** with formula: =ABS((Actual-Forecast)/Forecast)>0.2.

Q28. How would you automate sending reminder emails for contracts expiring in 30 days?

Answer: VBA with Outlook automation → Loop through rows, check ExpiryDate<=TODAY()+30, send .MailItem.

Q29. Legal team requires that all abbreviations ("Ltd.", "Pvt.") be standardized. Solution?

Answer: VBA **Find & Replace loop** across workbook, log changes in "Log" sheet.

Q30. In financial analysis, why prefer INDEX+MATCH over VLOOKUP?
 Answer: More flexible (left lookup), robust against column insertions, faster in large models.

Q31. How would you calculate Weighted Average Interest Rate across multiple loans?
 Answer: =SUMPRODUCT(LoanAmount,Rate)/SUM(LoanAmount).

Q32. How to protect sensitive financial models from editing?
 Answer: Protect sheet/workbook, lock cells, restrict VBA editor access with password, consider storing in SharePoint/OneDrive with permissions.

Q33. A dataset has client names duplicated with different spellings ("Infosys Ltd", "Infosys Limited"). How to fix?
 Answer: Use Fuzzy Lookup Add-in or Power Query transformation to normalize text.

Q34. CFO wants Scenario Analysis (Best, Base, Worst). Which tool?
 Answer: Use **Data Table (What-if)** or **Scenario Manager** in Excel.

Q35. Compliance officer wants to quickly see how many contracts are pending review by region. Which tool?
 Answer: Use PivotTable → Count of Status by Region, add slicers for filters.

Section C: VBA/Macro Coding (15 Qs)

Q36. Macro to list all sheet names in "Index" sheet.
 Answer:

```
Sub ListSheets()

 Dim ws As Worksheet, i As Long: i = 1

 For Each ws In ThisWorkbook.Worksheets

  Sheets("Index").Cells(i, 1).Value = ws.Name

  i = i + 1

 Next ws
```

End Sub

Q37. Macro to copy rows where Salary > 50000 from "Data" to "Filtered".
 Answer:

```
Sub CopyHighSalary()
 Dim i&, r&, ws1 As Worksheet, ws2 As Worksheet
 Set ws1=Sheets("Data"): Set ws2=Sheets("Filtered")
 r=2
 For i=2 To ws1.Cells(Rows.Count,1).End(xlUp).Row
   If ws1.Cells(i,3).Value>50000 Then
     ws1.Rows(i).Copy ws2.Rows(r): r=r+1
   End If
 Next i
End Sub
```

Q38. Macro to refresh all PivotTables.
 Answer:

```
Sub RefreshPivots()
 Dim ws As Worksheet, p As PivotTable
 For Each ws In Worksheets
   For Each p In ws.PivotTables
     p.RefreshTable
   Next p
 Next ws
End Sub
```

Q39. Macro to highlight duplicate Contract IDs in column A.
 Answer:

```
Sub HighlightDupes()

 Dim rng As Range

 Set rng = Range("A2:A100")

 rng.FormatConditions.Delete

 rng.FormatConditions.AddUniqueValues

 rng.FormatConditions(1).DupeUnique = xlDuplicate

 rng.FormatConditions(1).Interior.Color = vbYellow

End Sub
```

Q40. Macro to send email if expiry date <30 days.
 Answer:

```
Sub MailReminders()

 Dim i&, ws As Worksheet, OutApp As Object, OutMail As Object

 Set ws=Sheets("Contracts")

 Set OutApp=CreateObject("Outlook.Application")

 For i=2 To ws.Cells(Rows.Count,1).End(xlUp).Row

  If ws.Cells(i,3).Value<=Date+30 Then

    Set OutMail=OutApp.CreateItem(0)

    OutMail.To=ws.Cells(i,2).Value

    OutMail.Subject="Expiry Reminder"

    OutMail.Body="Contract expiring soon"

    OutMail.Send
```

End If

 Next i

End Sub

Q41. VBA function to return nth occurrence of a name.
 Answer:

Function NthMatch(val, rng As Range, n As Long) As Variant

 Dim c As Range, cnt&

 For Each c In rng

  If c.Value=val Then

    cnt=cnt+1

    If cnt=n Then NthMatch=c.Offset(0,1).Value: Exit Function

   End If

 Next c

 NthMatch="Not Found"

End Function

Q42. Macro to log all changes in "Log" sheet.
 Answer:

Private Sub Worksheet_Change(ByVal Target As Range)

 Dim ws As Worksheet: Set ws=Sheets("Log")

 Dim r&

 r=ws.Cells(Rows.Count,1).End(xlUp).Row+1

 ws.Cells(r,1)=Now

 ws.Cells(r,2)=Target.Address

ws.Cells(r,3)=Target.Value

End Sub

Q43. Macro to replace "Ltd." with "Limited" across workbook.
 Answer:

Sub ReplaceLtd()

 Dim ws As Worksheet, c As Range

 For Each ws In Worksheets

  For Each c In ws.UsedRange

    If InStr(c,"Ltd.")>0 Then c.Value=Replace(c,"Ltd.","Limited")

   Next c

 Next ws

End Sub

Q44. Macro to consolidate CSV files from a folder.
 Answer: (see consolidation macro in earlier answer).

Q45. Macro to calculate average of column B and display MsgBox.
 Answer:

Sub AvgMsg()

 MsgBox "Average is " &
Application.WorksheetFunction.Average(Range("B2:B100"))

End Sub

Q46. Macro to hide all sheets except "Dashboard".
 Answer:

Sub HideSheets()

 Dim ws As Worksheet

For Each ws In Worksheets

  If ws.Name<>"Dashboard" Then ws.Visible=xlSheetHidden

 Next ws

End Sub

Q47. Macro to unhide all sheets.
 Answer:

Sub UnhideAll()

 Dim ws As Worksheet

 For Each ws In Worksheets: ws.Visible=True: Next ws

End Sub

Q48. Macro to insert timestamp when column A changes.
 Answer:

Private Sub Worksheet_Change(ByVal Target As Range)

 If Not Intersect(Target, Range("A:A")) Is Nothing Then

   Application.EnableEvents=False

   Target.Offset(0,1)=Now

   Application.EnableEvents=True

 End If

End Sub

Q49. Macro to export selected range as PDF.
 Answer:

Sub ExportPDF()

 Range("A1:D20").ExportAsFixedFormat Type:=xlTypePDF,
Filename:="Report.pdf"

End Sub

Q50. Macro to protect sheet with password.
 Answer:

Sub ProtectSheet()

 Sheets("Data").Protect Password:="blackrock123", AllowFiltering:=True

End Sub