Test Generator (TG)

Version 5.2

Quick-Start Guide & User Guide
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Quick Start Guide for Test Generator

Data Management:

Step 1: Acquire Appropriate License

Obtain either Trial or Premium License by contacting Techior

Step 2: Data Creation/ Acquisition

Create data using Test Generator Data Entry Module. Test Generator uses hierarchy of Board > Class > Subject > Chapter > Topic > Questions. Click on “Courses” tab on left panel and select appropriate entity to add.

Import data from word document. You can use the built in utility to import data from Word document. Click on “Import” tab on the left panel and select the appropriate entity.

Use the existing databank provided by Techior. Techior has developed question bank for CBSE, State, MHT-CET, AIEEE, BITSAT, JEE(Main), JEE(Advance) and Aptitude. This will save you lot of time and money. Click on “Configuration” tab on the left panel and select “Database” to choose your database.

You can export entered data to proof read by exporting it to word. Click on “Export” tab on the left panel and select the “Export to MS Word”.

Step 3: Test Creation

Create Test using various criteria. You can chose the criteria you want like chapters, difficulty level, number of questions, marks etc. Click on “Generate Test” tab on the left panel and select “Tests”.

Create a template that you use again and again to create different tests using the same test criteria. Click on “Generate Test” tab on the left panel and select “Template”.

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Step 4: Exporting to Word document for printing

Once the tests are created you can export to word for printing purpose. You can set the header or footer for the test to have institute logo, name, phone, address etc. You can create two column output to save on paper. You can also create multiple sets for the same questions on test. Answer keys are provided for objective type examinations that you can provide to students after the test. Detailed answers are also provided for test questions if you opt for Generate Answers on export screen.

Administrative

Configuration:
Connect to a database. Click on “Configuration” tab on the left panel and select “Database” to choose and connect your database.

Take a Backup. It is important to take regular backup in order to save your data in case of any failure like disk crash or virus attack. Click on “Configuration” tab on the left panel and select “Backup & Restore”.

Restore your data. In case your database ever gets corrupted, deleted or is lost due to disk crash or virus attack, you can restore data from a previously backed-up database. Click on “Configuration” tab on the left panel and select “Backup & Restore”.
User Management:

Add different users and provide them subject access. This adds to security that users can access subjects that are assigned to them.
**Trial License Window:**

When you start the application for the first time, you will see the following license window:

![License Window](image)

- **Machine Code:** 0730
- **Application Key:** [ ]
- **Unlock Key:** [ ]

*Note: Contact Techior Solutions Pvt. Ltd. at 9766516435 or send email at info@techior.com to get the application key and Unlock key after providing the above Machine Code.*
Login to Test Generator (Trial Version):
Note: Question entry in the trial version is limited to a maximum of 50 questions. If this limit is exceeded during question entry, Import and Restore, then the following message window will be prompted:

![Configuration Window]

Test Generator trial version allows maximum of 50 questions.
If you want to upgrade to premium version for unlimited questions, please contact Techior Solutions Pvt Ltd at 9766616435 or send email at info@techior.com.
Upgrade to Premium Version:
When you are ready to start using the Premium Version, click on “UpgradeToPremium” to open the below license window.
Then call Techior Solutions @ 9766616435 and give the complete 4-digit “Machine Code” generated in the below license window to obtain the Application Key and Unlock Key.
Once you have the Application Key and Unlock Key, enter the same below and click “OK”.

[Image of license window with Machine Code 0720 with Application Key and Unlock Key fields and instructions to enter the same below and click “OK”]

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Login to Test Generator:

Use the User ID and Password provided to you by Techior Solutions Pvt Ltd to login to Test Generator application.
How to add/edit/delete a board:

Select the “Courses” tab on the left bottom pane and “Board” tab from the left top pane. This opens up the board listing form in the right pane.

The “Add” tab allows you to create a new board. Click on this tab to open the Board Entry form in the right pane.

In the Board Entry form, enter the name of the board and the description (any comments). The board can also be entered in different languages (Unicode), just copy the board name & paste it here in the board name field.

Press “Save” symbol at the bottom of the page to save the board details.
The “Edit” tab allows you to edit the board name or the description. Select the board for which you want to change the description and press the “Edit” tab. Then make the required changes and press the “Save” symbol.

The “Delete” tab allows you to remove/delete a board from your database. Select the board which you want to delete and press the “Delete” tab. A confirmation window appears asking you to confirm your action. Press “Yes” if you are sure that you want to delete the selected board.
How to add/edit/delete a Class:

Select the “Courses” tab on the left bottom pane and “Class” tab from the left top pane. This opens up the class listing form in the right pane. All the classes which are currently available in your database are listed in this form.

You can choose a board name (e.g. CBSE) from the Board Name field at the top of the form and press “Go” button to list all the classes that are available for a particular board.

You can also search for a specified string of text within the class name by specifying the string in the “search” field and pressing “Go” button.

The “Add” tab allows you to create a new class. Click on this tab to open the Class Entry form in the right pane.
The class name can also be entered in different languages (Unicode), just copy the class name & paste it here in the class name.

In the Class Entry form, select the name of the board under which the class is to be added. Then enter the class name and the description (any comments).

Press “Save” symbol at the bottom of the page to save the class details.

The “Edit” tab allows you to edit the class name or the description. Select the class for which you want to change the name or description (left click on the class name) in the class listing page and press the “Edit” tab. Then make the required changes and press the “Save” symbol.

Using the “Edit” tab, you can also change the board name to which a class belongs. Select the class for which you want to change the board name (left click on the class name) in the class listing page and press the “Edit” tab. Pick the board name where you want the selected class to belong. Then press the “Save” symbol. In the class listing page, you will be able to see that the class now belongs to the new board name that you had chosen.

The “Delete” tab allows you to remove/delete a class from your database. Select the class which you want to delete (left click on the class name) in the class listing page and press the “Delete” tab. A confirmation window appears asking you to confirm your action. Press “Yes” if you are sure that you want to delete the selected class.
How to add/edit/delete a Subject:

Select the “Courses” tab on the left bottom pane and “Subject” tab from the left top pane. This opens up the subject listing form in the right pane. All the subjects which are currently available in your database are listed in this form.

You can choose a board name (e.g. CBSE) from the Board Name field and the class name from the Class field at the top of the form and press “Go” button to list all the subjects that are available for a particular board and class. If you select just the Board name (and do not select anything in the class name) and press “Go” button, then it will list all the subjects that are available for all the classes under the selected board.

The Subject name can also be entered in different languages (Unicode), just copy the Subject name & paste it here in the Subject name.
You can also search for a specified string of text within the subject name by specifying
the string in the “search” field and pressing “Go” button.

The “Add” tab allows you to create a new subject. Click on this tab to open the Subject
Entry form in the right pane.

In the Subject Entry form, select the name of the board and the class under which the
subject is to be added.

Then enter the subject name and the description (any comments).

You can specify if you want the tests in this new subject to have negative marking for
evaluation purpose. For example: If negative marking is set to 50%, it means that when a
2 mark question is incorrect, 1 mark will be deducted.

Press “Save” symbol at the bottom of the page to save the subject details.

The “Edit” tab allows you to edit the subject name or the description. Select the subject
for which you want to change the name or description (left click on the subject name) in
the subject listing page and press the “Edit” tab. Then make the required changes and
press the “Save” symbol.

Using the “Edit” tab, you can also change the board name and the class to which a
subject belongs. Select the subject for which you want to change the board name or the
class name (left click on the subject name) in the subject listing page and press the “Edit”
tab. Pick the board name and the class where you want the selected subject to belong.
Then press the “Save” symbol. In the subject listing page, you will be able to see that the
subject now belongs to the new board name and the class that you had chosen.

The “Delete” tab allows you to remove/delete a subject from your database. Select the
subject which you want to delete (left click on the subject name) in the subject listing
page and press the “Delete” tab. A confirmation window appears asking you to confirm
your action. Press “Yes” if you are sure that you want to delete the selected subject.
How to add/edit/delete a Chapter:

Select the “Courses” tab on the left bottom pane and “Chapter” tab from the left top pane. This opens up the chapter listing form in the right pane. All the chapters which are currently available in your database are listed in this form.

You can choose a board name (e.g. CBSE) from the Board Name field, the class name from the Class field and the subject name from the subject field at the top of the form and press “Go” button to list all the chapters that are available for a particular board, class and subject.

You can also search for a specified string of text within the chapter name by specifying the string in the “search” field and pressing “Go” button.
The “Add” tab allows you to create a new chapter. Click on this tab to open the Chapter Entry form in the right pane.

In the Chapter Entry form, select the name of the board, the class and the subject under which the chapter is to be added. The Chapter name can also be entered in different languages (Unicode), just copy the Chapter name & paste it here in the Chapter name.

Then, enter the chapter number, the chapter name and the description (any comments).

In the “Summary:” field, you can add the summary of the chapter if you want. The chapter summary should have all the important concepts of the chapter – it can contain images as well as equations.

Press “Save” symbol at the bottom of the page to save the chapter details.

The “Edit” tab allows you to edit the chapter name or the chapter details. Select the chapter for which you want to change the name or the details (left click on the chapter name) in the chapter listing page and press the “Edit” tab. Then make the required changes and press the “Save” symbol.

Using the “Edit” tab, you can also change the board name, the class and the subject to which a chapter belongs (this is useful in case a chapter has been added to a wrong class or subject by mistake). Select the chapter for which you want to change the board name, the class name or the subject name (left click on the chapter name) in the chapter listing page and press the “Edit” tab. Pick the board name, the class and the subject where you want the selected chapter to belong. Then press the “Save” symbol. In the chapter listing page, you will be able to see that the chapter now belongs to the new board name, the class and the subject that you had chosen.

The “Delete” tab allows you to remove/delete a chapter from your database. Select the chapter which you want to delete (left click on the chapter name) in the chapter listing page and press the “Delete” tab. A confirmation window appears asking you to confirm your action. Press “Yes” if you are sure that you want to delete the selected chapter.
How to add/edit/delete a Topic:

Select the “Courses” tab on the left bottom pane and “Topic” tab from the left top pane. This opens up the topic listing form in the right pane. All the Topics which are currently available in your database are listed in this form.

You can choose a board name (e.g. CBSE) from the Board Name field, the class name from the Class field and the subject name from the subject field & chapter name from the Chapter field at the top of the form and press “Go” button to list all the Topics that are available for a particular board, class, subject and chapter.

You can also search for a specified string of text within the topic name by specifying the string in the “search” field and pressing “Go” button.
The “Add” tab allows you to create a new topic. Click on this tab to open the Topic Entry form in the right pane.

In the Topic Entry form, select the name of the board, the class, the subject & chapter under which the topic is to be added. Then, enter the topic number, the topic name and the description (any comments). The topic name can also be entered in different languages (Unicode), just copy the topic name & paste it in the topic name field.

Press “Save” symbol at the bottom of the page to save the topic details.

The “Edit” tab allows you to edit the topic name or the topic details. Select the topic for which you want to change the name or the details (left click on the topic name) in the topic listing page and press the “Edit” tab. Then make the required changes and press the “Save” symbol.

Using the “Edit” tab, you can also change the board name, the class and the subject, the chapter to which a topic belongs (this is useful in case a topic has been added to a wrong class, subject or chapter by mistake). Select the topic for which you want to change the board name, the class name, the subject name or chapter (left click on the topic name) in the topic listing page and press the “Edit” tab. Pick the board name, the class, the subject & the chapter where you want the selected topic to belong. Then press the “Save” symbol. In the topic listing page, you will be able to see that the topic now belongs to the new board name, the class, the subject & the chapter that you had chosen.

The “Delete” tab allows you to remove/delete a topic from your database. Select the topic which you want to delete (left click on the topic name) in the topic listing page and press the “Delete” tab. A confirmation window appears asking you to confirm your action. Press “Yes” if you are sure that you want to delete the selected topic.

**How to add/edit/delete a Question:**

Click on questions, it will show you the number of total available questions. If you want to search the question by user name or by date, select it from drop down & click on Go.
Select the “Courses” tab on the left bottom pane and “Questions” tab from the left top pane. This opens up the Questions listing form in the right pane. All the questions which are currently available in your database are listed in this form.

You can choose a board name (e.g. CBSE) from the Board field, the class name (e.g. X) from the Class field, the subject name (e.g. Science) from the subject field, the chapter name from the Chapter field and the topic name from the topic field at the top of the form and press “Go” button to list all the questions that are available for a particular board, class, subject, chapter and topic. It is not necessary add the questions under a topic name. If you do not choose any topic name, then the questions will be added under the chapter name.

You can also search for a specified string of text within the question by specifying the string in the “search” field and pressing “Go” button.
The “Add” tab allows you to create a new question. Click on this tab to open the Question Entry form in the right pane.

In the Question Entry form, select the name of the board, the class, the subject and the chapter under which the question is to be added.

Then add the question details as follows:

“Question Level”: This field indicates the difficulty level of the question. Levels L1 through L3 have been provided – L1 is the least difficult and L3 is the most difficult.

“Question Marks”: Here you can specify the maximum marks for the question. Marks range of 1 – 10 has been provided.

“Approve questions”: If you want to approve the question while entering the question, tick the checkbox for approve questions.

“Question Type”: This field indicates the type of the Question. Choose from the following options:
1. Multiple choice question with single correct answer
2. Multiple choice question with multiple correct answers
3. Multi-Step type question – give the sequence number to the steps.
4. True/False
5. Complete the answer
6. Fill in the blanks.
7. Very Short Description (1 line answer)
8. Short Description (25 Words answer)
9. Medium Description (50 Words answer)
10. Long Description (100 Words answer)
11. Comprehension Questions
12. Match the Pairs

Besides these pre-defined question types, you can also create your own question type using “Add Question Type” button.

“Options/Steps”: In this field, you need to specify the number of options available in case of multiple choice question.

“Question Time Duration”: Here you can specify the estimated time duration for the question. Time duration for each question can be from seconds to 60 min. The sum of the estimated time duration of all the questions in the paper is taken as the total duration for the question paper.
After selecting the above fields, enter the question text. This can contain text, as well as images and equations.

For multiple choice questions, the options are provided at the bottom. You can enter text or images in the options. You need to select the correct option so that automatic evaluation can be done.

Using the “Hint” button, you can specify any text in the Hint field. This is used to provide a hint to the students on how to solve the question. For example, you may give the formula that is to be used, etc.

Using the “Explanation” button, you can specify any text in the Explanation field. This can be used to give the answer of the subjective questions, which can be later be referred by the students.

Press “Save” symbol at the bottom of the page to save the question details.

The “Edit” tab allows you to edit the question details. Select the question for which you want to change the details (left click on the question name) in the question listing page and press the “Edit” tab. Then make the required changes and press the “Save” symbol.

Using the “Edit” tab, you can also change the board name, the class, the subject, the chapter and the topic to which a question belongs (this is useful in case a question has been added to a wrong class, subject, chapter or topic by mistake). Select the question for which you want to change the board name, the class name, the subject name, the chapter name or the topic name (left click on the question name) in the question listing page and press the “Edit” tab. Pick the board name, the class, the subject, the chapter and the topic where you want the selected question to belong. Then press the “Save” symbol. In the question listing page, you will be able to see that the question now belongs to the new board name, the class, the subject, the chapter and the topic that you had chosen.

The “Delete” tab allows you to remove/delete a question from your database. Select the question which you want to delete (left click on the question name) in the question listing page and press the “Delete” tab. A confirmation window appears asking you to confirm your action. Press “Yes” if you are sure that you want to delete the selected question.
Sample of MCQ Single Correct Type Question Entry

The above form shows how to enter multiple choice type of question which has a single correct option. Select “MCQ SINGLE CORRECT” in Question Type and select the option that is correct.
Press “Save” symbol at the bottom of the page to save the question details.

Sample of MCQ Multiple Correct Question Entry
The above form shows how to enter multiple choice type of question which has multiple correct options. Select “MCQ MULTIPLE CORRECT” in Question Type and tick the options that are correct. Press “Save” symbol at the bottom of the page to save the question details.
Sample of Multi-step Question Entry

The above form shows how to enter multi step type of question. In this type of question, the steps are given as options and the student has to arrange the options in proper sequence. Select “MULTISTEP” in Question Type and enter the correct sequence of the options in the space provided next to the options (as shown above). Press “Save” symbol at the bottom of the page to save the question details.
Sample of True / False Question Entry

The above form shows how to enter true/false type of question. Select “TRUE/FALSE” in Question Type. Enter True and False in the options and select the correct answer. Press “Save” symbol at the bottom of the page to save the question details.
Sample of Complete the Answer Question Entry

The above form shows how to enter “Complete the Answer” type of question. This type of question is like Fill in the blank, but the options are given to the student. Select “COMPLETE THE ANSWER” in Question Type. Enter the incomplete question text and the options. Then select the correct option.
Sample of Fill in the Blanks Question Entry

The above form shows how to enter Fill in the blanks type of question. In this type of question, no options are given to the student. Select “FILL IN THE BLANKS” in Question Type and enter the question text with a dotted line for the blank which the student is supposed to fill. Then enter the correct answer in the space provided for answer. Press “Save” symbol at the bottom of the page to save the question details.
Sample of Very Short Description Question Entry

The above form shows how to enter very short description type of question. Select “VERY SHORT DESC” in Question Type.

Using the “Hint” button, you can specify any text in the Hint field. This is used to provide a hint to the students on how to solve the question. For example, you may give the formula that is to be used, etc.

Using the “Explanation” button, you can specify any text in the Explanation field. This can be used to give the answer of the subjective questions. This is shown in the answer
paper, which can be used as a reference by the teachers to correct the answer sheets of the students.

Press “Save” symbol at the bottom of the page to save the question details.

**Sample of Short Desc-25 word Question Entry**

The above form shows how to enter short description type of question. Select “SHORT DESC – 25 WORDS” in Question Type.

Using the “Hint” button, you can specify any text in the Hint field. This is used to provide a hint to the students on how to solve the question. For example, you may give the formula that is to be used, etc.

Using the “Explanation” button, you can specify any text in the Explanation field. This can be used to give the answer of the subjective questions. This is shown in the answer
paper, which can be used as a reference by the teachers to correct the answer sheets of the students.

Press “Save” symbol at the bottom of the page to save the question details.

**Sample of Medium Desc-50 word Question Entry**

The above form shows how to enter medium description type of question. Select “MED DESC – 50 WORDS” in Question Type.

Using the “Hint” button, you can specify any text in the Hint field. This is used to provide a hint to the students on how to solve the question. For example, you may give the formula that is to be used, etc.
Using the “Explanation” button, you can specify any text in the Explanation field. This can be used to give the answer of the subjective questions. This is shown in the answer paper, which can be used as a reference by the teachers to correct the answer sheets of the students.

Press “Save” symbol at the bottom of the page to save the question details.

**Sample of Long Desc-100 word Question Entry**

The above form shows how to enter long description type of question. Select “LONG DESC – 100 WORDS” in Question Type.

Using the “Hint” button, you can specify any text in the Hint field. This is used to provide a hint to the students on how to solve the question. For example, you may give the formula that is to be used, etc.
Using the “Explanation” button, you can specify any text in the Explanation field. This can be used to give the answer of the subjective questions. This is shown in the answer paper, which can be used as a reference by the teachers to correct the answer sheets of the students.

Press “Save” symbol at the bottom of the page to save the question details.

**Sample of Comprehension Question Entry**

The above form shows how to enter comprehension type of question. Select “COMPREHENSION” in Question Type.
The questions pertaining to a particular passage belong to a group.

**To add a new comprehension type question group,** tick both “New Group” and “Add to Group” checkboxes. A group number is allocated to the group.
Click on “Paragraph” button. A popup will appear. Enter the passage here. Click Save to save the paragraph.
Then enter the first question in the space provided for question text. Currently only MCQ single correct type question are supported within comprehension questions. Enter the options for the first question and select the correct option.

To add a new question to an existing group, tick only “Add to Group” checkbox. Uncheck the “New Group” checkbox. The group number of the group which was last entered will automatically be shown. You can change this if you want to add the question to a different group.

The passage should be entered only once when a new group is created. The passage will appear only once in the generated question paper. In a generated question paper, comprehension questions appear in the same sequence in which they were entered. When a comprehension question is selected in a question paper, all the questions in the selected group will appear automatically. Press “Save” symbol at the bottom of the page to save the question details. You can enter all types of sub questions under comprehension questions like MCQ multiple correct, Fill in the blanks & descriptive questions also.
The above form shows how to enter Match the pairs type of question. Select “MATCH THE PAIRS” in Question Type.
Choose the “Add Table” option from the Formatting Toolbar and enter “No. of Rows” and “No. of Columns” to create your table. Then fill in the values in the table as shown above.

Using the “**Hint**” button, you can specify any text in the Hint field. This is used to provide a hint to the students on how to solve the question. For example, you may give the formula that is to be used, etc.

Using the “**Explanation**” button, you can specify any text in the Explanation field. This can be used to give the answer of the question. This is shown in the answer paper, which can be used as a reference by the teachers to correct the answer sheets of the students.

Enter the pairs with different combinations & mark the correct one.

Press “**Save**” symbol at the bottom of the page to save the question details.
How to add User Defined New Question Type:

Users can define new question types according to their need. Go to Add Question form. Click on “Add Question Type” button to define your own question type.

Click on Add Question Type, the following window will open.
Add question type & select question type category from the dropdown which matches with the question type added by the user. Then click on save, Question type defined by the user is now saved successfully.

To Update or Delete a user-defined question type, double-click on Question Type in the grid.

New Question Type will be added in Question Type dropdown.

Close the Question entry window & select Board, Class, Subject, Chapter & the recently added Question Type from the dropdown & type the question & click on save.

The Question is added under the particular chapter.
Approve Questions:
This feature is provided so that you can approve the questions before you use any question in a test. If a question is not approved, it will not appear in a test. By default, when questions are added, they are not approved. You can mark a question as “Approved” at the time of question entry or approve the questions in a lot after data entry is completed.

Once all the questions are added and/or imported, questions can be approved at a time, click on Approve questions, will take you to the approve question form. Here select the board, class, subject & chapters & topics (if any) select the “Not-Approved question(s)” radio button & then click on search, it will show you the number of unapproved questions select the questions to be approved & then click on Approve button, it will show you the successful message.
<table>
<thead>
<tr>
<th>Sr No.</th>
<th>Select All</th>
<th>Question Text</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>If (\lfloor x \rfloor) is the greatest integer (x), then number of possible values of (x) is</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>A mapping is selected at random from the set of all mapping of the set (A = {1, 2, 3, \ldots, n}) into itself.</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>The largest interval in which is</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>If the sum of the coefficient in the expansion of (x^5), then the greatest coefficient in the expansion of ((1 + x)^5)</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>If and then equals</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>If the number is purely imaginary, then</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>The value of (k) for all equations of the system, (x + ky = 3; kx + 4y = 6) satisfy the conditions (x &gt; 1, y)</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>If (x) and (y) are the roots of the equation (x^2 + px + q = 0) (with (p, q) the value of the determinant is).</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>The sum equals</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>Three mothers each with her child is called for interview for the admission of the child in a school. TI</td>
<td>1</td>
</tr>
</tbody>
</table>
Once the questions are approved, it will show the status of the questions as (●).
NOTE: Only the approved questions will be shown as available questions while generating the test(s).
How to add/edit/delete a FlashCard:

1. Select the “Courses” tab on the left bottom pane and “FlashCards” tab from the left top pane. This opens up the Flash Cards listing form in the right pane. All the flash cards which are currently available in your database are listed in this form.

2. You can choose a board name (e.g. CBSE) from the Board field, the class name (e.g. X) from the Class field, the subject name (e.g. Science) from the subject field and the chapter name from the Chapter field at the top of the form and press “Go” button to list all the flash cards that are available for a particular board, class, subject and chapter.

3. You can also search for a specified string of text within the flash card by specifying the string in the “search” field and pressing “Go” button.

4. The “Add” tab allows you to create a new flash card. Click on this tab to open the Flash Card Entry form in the right pane.
In the Flash Card Entry form, select the name of the board, the class, the subject and the chapter under which the flash card is to be added.

In “Media File:” field, you can specify an audio file (mp3 or wav) that will be linked to the Flash Card that you are currently entering. Use the “Browse” button to select an audio file from any location on your computer.

The “Sequence :” is a serial number – this indicates the sequence in which the Flash Cards will be displayed. That is, the Flash Card with serial number 1 will be displayed first.

In the “Content:” field, add the contents of the flash card. Here, you can use bullets to present the important points, or you can enter plain text as description.
for the concepts in a chapter. You can also insert images in the flash card (example: labeled diagrams, etc.)

Press “Save” symbol at the bottom of the page to save the flash card details.

5. The “Edit” tab allows you to edit the flash card details. Select the flash card for which you want to change the details (left click on the flash card name) in the flash card listing page and press the “Edit” tab. Then make the required changes and press the “Save” symbol.

6. Using the “Edit” tab, you can also change the board name, the class, the subject and the chapter to which a flash card belongs (this is useful in case a flash card has been added to a wrong class, subject or chapter by mistake). Select the flash card for which you want to change the board name, the class name, the subject name or the chapter name (left click on the flash card name) in the flash card listing page and press the “Edit” tab. Pick the board name, the class, the subject and the chapter where you want the selected flash card to belong. Then press the “Save” symbol. In the flash card listing page, you will be able to see that the flash card now belongs to the new board name, the class, the subject and the chapter that you had chosen.

7. The “Delete” tab allows you to remove/delete a flash card from your database. Select the flash card which you want to delete (left click on the flash card name) in the flash card listing page and press the “Delete” tab. A confirmation window appears asking you to confirm your action. Press “Yes” if you are sure that you want to delete the selected flash card.

How to use the Pagination buttons:
All the listing pages have support for pagination. In the “Page Size” field, you can set the number of entries that you want to see per page.

If there is a lot of data, then the next set of entries can be seen using the “Next” button.

You can go back and forth using the “Prev” and “Next” buttons respectively.

You can use the “First” and “Last” buttons to get to the beginning and to the end of the listing.
Import:

How to Import Questions from Word:

Click on “Import” tab from the bottom left menu.
Select the appropriate “Board”, “Class” and “Subject”. The list of chapters in the selected board, class and subject will appear. Click on any chapter to see the list of topics in that chapter. Now choose the Question Type. You can only import one type of questions from a word file at a time.
Click on “Browse” and select the path of the word file from which data is to be imported. Once the path is chosen, click on “Import” to import the questions from the selected word file. The data in the Word file must be entered in the format which should match with the format of import file in import doc_files folder in the Test Generator installation directory.
You can also import all types of questions in a single import file. Just select the check box “Question type included in Import file option” & then select the format, enter the questions in import file & click on Import.
Note:
1. Keep the system in idle mode when “Import” is being used.
2. Do not use copy/paste functionality while import is in progress.
3. Do not open any other word document while import is in progress.
How to Export to MS Word:

The questions entered in the Test Generator database can be exported into a Word document for proof reading.

Click on "Export" tab from the bottom left menu.

Now select "Board", "Class", and "Subject" from the drop-down list and select the Chapter(s) from which the questions have to be exported.
6. Click "Preview" to view the question(s) in the selected chapter(s).
7. Then click "Browse" to choose the path where you want to save the word document. 
   click on Regular (proof reading view) or you can select Tabular view if you want to export the questions in tabular format.
   Default path is C:\TestGenerator
8. Confirmation Message will pop-up when export is completed.
Upload data:
Click on upload data. It will take you to the new form. Upload data is used to upload the data on the server from where the all the data from test generator is uploaded & used in online test engine.
Enter the password & click on connect it will connect it to the server.

How to Install File Transfer Protocol (FTP):

1. Click "Start" on Windows Start Menu.
2. Select "Control Panel" and wait for the Control Panel Page to open.
3. Double-Click on "Add or Remove Programs" and select "Add/Remove Windows Components".

3. When "Windows Components Wizard" opens, please check the checkbox for "Internet Information Services (IIS)" and click on "Details".
The image shows the Windows Components Wizard window. It contains a list of components with their sizes:

- Fax Services: 3.8 MB
- Indexing Service: 0.0 MB
- Internet Explorer: 0.0 MB
- Internet Information Services (IIS): 13.5 MB
- Management and Monitoring Tools: 21.0 MB

There are checkboxes next to each component, allowing the user to select or unselect them. The total disk space required is 54.4 MB, and the space available on disk is 4742.4 MB. The window provides options to go back, next, or cancel the action.
4. In the "Internet Information Services (IIS)" window, please check the checkbox for "File Transfer Protocol (FTP) Service" and click "Ok".
5. Now Click "Next" on the "Windows Components Wizard".

6. System will ask you the disc for the Operating system installed on your computer. Insert the required disc and click on "Ok".
7. Windows will now start the "IIS" setup process.
8. Click on "Finish" to close the wizard.
9. To confirm FTP Setup has been completed, Open "My Computer" and go to the path: C:\inetpub\ftproot
10. You can also check for Step 10 by opening Explorer from Windows -> Explore. Now in the address bar on the top, type: ftp://localhost
11. Now go to Start -> Control Panel -> Administrative Tools
12. Open "Internet Information Services" Module.

13. When "Internet Information Services" Module opens, click on (+) icon of the local computer.
14. Now click on the (+) icon of "FTP Sites". "Default FTP Site" will be visible.
15. Now "Right Click" on the "Default FTP Site" and click "Properties".
16. Now select "Home Directory", enter the path for the folder where data will be uploaded (E.g.: D:\AptitudeTG) in "FTP Site Directory" Section, check the checkbox for "Write", click on "Apply" and "Ok".
17. Now "Right Click" on the "Default FTP Site", click "New" and click "Virtual Directory".

18. Click "Next" on the "Virtual Directory Creation Wizard".
19. Enter Alias Name (E.g.: aptitude) and click "Next".
20. Enter the Path (E.g.: D:\AptitudeTG) where data from Test Generator will be uploaded.
21. Check the checkboxes for "Read" and "Write" in the "Access Permissions" window.
22. Now Click "Finish" on the "Virtual Directory Creation Wizard".
Note: In order to access FTP from a remote terminal or computer, please create a user on the FTP machine. Go to Start-> Control Panel-> User Accounts

**System default path for FTP**
ftp://localhost/<FTP Folder Name> E.g.: [ftp://localhost/AptitudeTG](ftp://localhost/AptitudeTG)

**Network Path**
How to create System DSN (Data Source Name) for MySQL Database:

1. Click on "Start" and Select "Control Panel".
2. Double-click "Administrative Tools" and then double-click Data Sources (ODBC).
3. Click "System DSN" and select "Add".
4. Select "MySQL ODBC 5.1 Driver" and Click "Finish". If MySQL ODBC Driver is not installed on your system, please download (Windows (x86, 32-bit), MSI Installer) here: http://www.mysql.com/downloads/connector/odbc/
1. Now select the System DSN created (E.g. AptitudeDSN) and click "Configure".
Now fill out the details like Data Source Name (E.g.: AptitudeDSN), Server (IP Address of machine where FTP is created), Port (E.g.: 3306), User (E.g.: root), Password (E.g.: mysql), Choose the Database (E.g.: aptitude)
2. Once all the above details are filled, click on “Test” to check the connectivity. If connected successfully, a confirmation message is prompted.

3. If connection fails or if there is a network failure while performing “Test”, an error message is prompted.
Once, the DSN is created, open the Uploader software, connect it to the TG++ db, enter the FTP details (ex. remote image path, Remote media path, DSN name) & click on connect.
If the connection is successful, following message comes,

![Window displaying Connected to FTP Server]

Click on OK, next message will come for successfully connecting with the database.

![Window displaying Connected to Remote database]

Click on OK.
Upload Board:
By default when the uploader is connected successfully, upload board option is selected.

Here select the board name(s) to be uploaded & then click on Upload, once the upload is completed, a successful message will come.
Upload Class:
Once, the board is uploaded click the radio button in front of class & click on Upload to upload the class details.
Upload Subject:
Select Subject radio button & select subjects to be uploaded.

Successful message will be shown.
Upload Chapter(s):
Select chapter radio button, select chapter names to be uploaded & then click on Upload.

Successful message will come
Upload Topic(s):
Select Topic radio button, select the topics to be uploaded & click on Upload.

Successful message will come
If flashcards are available, in the same way flash cards can also be uploaded.

**Upload Question type:**
Select Question type radio button, select the question types to be uploaded & click on Upload.
Successful message will come as shown below.

![Data Uploader]

Selected Question Type uploaded successfully.

**Upload Questions:**
Select the board(s), class(s), subject(s), chapter(s), topic(s) & then click on Upload.

![Upload Questions]

Upload Custom Test:
Click on Custom test radio button & select the tests to be uploaded on the server & then click on Upload.

Successful message will come after uploading.
Question Bank Summary:

Click on question bank summary to see the total questions available under selected board, class, subject & chapters. You can also export these details in excel.
How to generate a Test:

Click on the "Generate Test" tab on the left bottom pane. This opens up the Test Generator listing form in the right pane. Here you can see the list of all the question papers that have been generated so far.

![Test Generator Form]

Click on the “Add” tab to create a new question paper. This opens up the Test Generator Entry form in the right pane.

In the Test Generator Entry form, select the Board, Class and Subject for which the question paper has to be generated.
Enter a Test Name. This is the name given to the test that you will generate. You can use any notation to identify the test that you generate. For example: “Unit Test – 1”, “UnitTest-Sept08”, “FinalTest-March08”, etc.

Select the chapters from which the question paper has to be generated. To select the chapters, use the checkboxes provided next to the chapter name listing. Click on “Show Topic” checkbox to see the list of topics in the selected chapters. Select the topics using the checkboxes provided next to the topic name listing.

Select the type of test that you want to generate. There are 8 types of tests that can be generated:

**Unit test:** This allows you to create a unit test paper from a selected set of chapters. This type of test contains objective as well as subjective (descriptive) type of questions. You can choose the paper to be based on either the Total Marks or the Total Questions.
This type of test can be used to generate a question paper for mid-term exams.

**Objective test:** This allows you to create a test paper with only objective type questions from the selected chapters. The objective type questions can include multiple choice questions (with single correct or multiple correct answers), true or false and multi-step type of questions.

This type of test should be used for generating a question paper with only objective type questions – this can be used for class tests, quiz, etc.

**Final test:** When this option is selected, questions are picked from all the chapters in the selected subject. Also, all types of questions are included in the paper – objective as well as subjective (descriptive).

This type of test should be used to generate a question paper for the final exams (or as a practice test for the final exams).

**Question Type Wise:** This option is provided as a convenient tool for teachers to be able to define the breakup of the question paper. They can choose the questions based on the question type. The total number of questions available for each question type is shown. Here, teachers are free to select the number of questions of each question type category.

In this type of test, the total number of questions and the total number of marks are calculated and shown to you as you make your selections of the questions.

This type of test is useful when teachers want to generate a questions paper with specific number of questions of each type.

**Mark Wise:** Using this type of test, teachers can define the breakup of the question paper based on marks of each question. The total number of questions which are available for different marks categories are shown. Here, teachers are free to select the number of questions of different marks category. For example: teachers can create a question paper with 5 questions of 1 mark each, 4 questions of 2 marks each, 6 questions of 4 marks each and 2 questions of 6 marks each.

In this type of test also, the total number of questions and the total number of marks are calculated and shown to you as you make your selections of the questions.

This type of test is useful when teachers want to generate a questions paper with specific number of questions of each mark category.
**Select Your Questions:** Using this option, teachers can actually pick the questions that should appear in the question paper. A list of questions is provided for each question type that is selected, and the teachers can pick a question using the checkbox provided next to the question.

This type of test should be used when teachers want specific questions to appear in the question paper.

In this type of test, the total number of questions, the total number of marks and the duration of the test are calculated as the questions are being picked from the listing.

**Chapterwise Questions:** Using this option, teachers can actually pick the questions in combination of chapterwise and markwise together. For ex. 5 questions from chapter one of 1 marks and 5 questions from chapter one of 2 marks.
This type of test should be used when test need to be generated with mentioned number of questions of particular marks from particular chapter.

Once the above selections have been made, click on the “Generate” button at the bottom of the screen. This generates the question paper based on the selections made and shows a preview of the paper. Here the teachers can see the questions that have been picked, the marks for each question as well as total marks, duration for the test, etc.
Once the test preview form has been closed, the test generator entry form shows the details of the test that was last generated. These details include the name of the test, the subject for which the test has been generated, the total number of questions in the test, total marks, total time and the chapters from which the question paper has been prepared. See screenshot below.

**Topicwise Questions:**
Using this option, teachers can actually pick the questions in combination of chapterwise and markwise together. For ex. 5 questions from topic of 1 marks and 5 questions from topic one of 2 marks.

This type of test should be used when test need to be generated with mentioned number of questions of particular marks from particular topic of a particular chapter.
<table>
<thead>
<tr>
<th>Top.No</th>
<th>Topic Name</th>
<th>Question Type</th>
<th>Marks</th>
<th>Que.Avail.</th>
<th>Enter No. of Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tenses</td>
<td>MCQ SINGLE CORRECT</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td>Tenses</td>
<td>FILL IN THE BLANKS</td>
<td>0.5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>Tenses</td>
<td>COMPREHENSION</td>
<td>1</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Questions Selected : 10  
Total Marks Selected : 9.5  
Duration : [ ] Hours  [ ] Minutes  
Generate Test :
Subjectwise Questions:
Using this option, teachers can pick the questions in combination of subjects for a test. E.g. 5 questions from one subject of 1 marks and 5 questions from second subject of 2 marks.

This type of test should be used when test need to be generated from multiple subjects with mentioned number of questions of particular marks from particular topic of a particular chapter.
## Available Subjectwise Questions

<table>
<thead>
<tr>
<th>Sub.No.</th>
<th>Subject Name</th>
<th>Question Type</th>
<th>Marks</th>
<th>Que. Available</th>
<th>Enter No. of Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Maths</td>
<td>MCQ SINGLE CORRECT</td>
<td>1</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>Maths</td>
<td>MCQ MULTIPLE CORRECT</td>
<td>1</td>
<td>10</td>
<td>01</td>
</tr>
<tr>
<td>1</td>
<td>Maths</td>
<td>TRUE/FALSE</td>
<td>1</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>1</td>
<td>Maths</td>
<td>FILL IN THE BLANKS</td>
<td>0.5</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>English</td>
<td>FILL IN THE BLANKS</td>
<td>0.5</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>English</td>
<td>SHORT DESC - 25 WORDS</td>
<td>2</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>English</td>
<td>COMPREHENSION</td>
<td>1</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>Maths</td>
<td>INTEGER TYPE</td>
<td>1</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

**Total Available Questions:** 79

- **Total Questions Selected:** 56
- **Total Marks Selected:** 56

<table>
<thead>
<tr>
<th>Calculate Based on Question Duration</th>
<th>Generate Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration: [ ] Hours [ ] Minutes</td>
<td></td>
</tr>
</tbody>
</table>
NOTE: While generating any type of test, there is a check box for “Calculate Based on Question Duration”. If this check box is checked, the test will be created according to the total of time duration of the questions in the test which has been set for the questions. The sum of the estimated time duration of all the questions in the paper is taken as the total duration for the question paper.

Once the question paper has been prepared, it can be exported to a Word document using the “Export” button. Click on “Export” button and select the location on your computer where you want the question paper to be stored. The word document can later be edited (if any changes are required) and printed.
The Generated Test can be exported to Word document with a choice of format by selecting the format suits for you.
Note: Default options of single column will be used if nothing is selected.

**Print Options**

- Two Columns per page
- Two answer options per line
- Answer Options like (1),(2) instead of (a),(b)

**Settings for Answer Options**

- All Answer options in one line
- Fixed width in inches: 2.5

**Other Print Options**

- Group By Chapter
- Show marks per question
- Show Subject Name
- Reset Question Numbering for each subject
- Show Question Type
- Reset Question Numbering for each Question Type

**Select Sub Question Type:**

- Numeric no.: (1,2,3,...)
- Alphabetic (A,B,C,...)
- Roman no.: (i,i,ii,iii,...)

**Multiple Sets**

- Number of Sets: 1
- Sets with same questions but different order.

- Randomize Answer Options
- Generate Keys
- Generate Answers
- Include Question ID

**Section Details**

- Show Sections
- Reset Question Numbering for each Sections

**Section No. Type**

- Numeric no.: (1,2,3,...)
- Alphabetic (A,B,C,...)
- Roman no.: (i,i,ii,iii,...)
Two columns per page: If this option is ticked, then the questions are arranged in 2 columns in the Word document for optimized use of paper.

All answer options per line: If this option is ticked, then the answer options are arranged in 1 line in the Word document for optimized use of paper.

Two answer options per line: If this option is ticked, then the answer options are arranged in 2 columns in the Word document for optimized use of paper.

Answer options like (1), (2) instead of (a), (b): If this option is ticked, the answer options are shown as (1), (2) instead of (a), (b). This option affects MCQ single correct, MCQ multi-correct and True/False type of questions.

Reset question Numbering for each subject: By clicking this option, the question numbering gets reset for each subject. This option is applicable to multi-subject tests only.

Reset question Numbering for each Question type: By clicking this option, the question numbering gets reset for each Question type. This option is applicable for different question type.

Group by chapter: When this option is ticked, all the questions from the same chapter can be grouped together.

Show Subject Name: When this option is ticked, it will show the names of the subject(s) from which the test is generated.

Show marks per question: If this option is ticked, then the marks allocated to each question will be displayed in the question paper.

Show Reference: If this option is ticked, it will show the reference of the questions if it is added at time of question entry.

Show Chapter Number: If this option is ticked, it will show the chapter no of every question to which it belongs.

Show Question type: If this option is ticked, it will show the question type of every question in the test.
Sort Question Mark wise : If this option is ticked, it will show the questions in the test according to the marks (group by marks)

Multiple Sets: This option can be used to generate multiple paper sets with same questions in different order. Enter a number in the field provided to indicate the number of different sets that you want.

Randomize Answer Options: This option randomizes the sequence of answer options.

Generate keys: If this option is clicked, a separate key file is generated which contains the question number along with the correct option for each question. This can be used as a reference file for correcting the answer sheets of the students.

Include keys for very short descriptive questions: If this option is clicked, a separate key file is generated which contains the correct answer for each very short descriptive question. This can be used as a reference file for correcting the answer sheets of the students.

Generate Answers: If this option is clicked, a separate file is generated which contains the questions along with answers and explanation as per question paper set one. This can be used as a model answer sheet for correcting the answer sheets of the students.

Include Question Id: This option will display question Id in the Generated Answer Set against the question. It will help to search the question in the database.

Include question Text: This option will display question text along with the answers in the Generated Answer Set against the question. This helps the teachers to use the generated answer sheet for correction of student answer sheet.

Section details: This option will display the sections either Numeric No., Alphabetic or Roman No. whatever option is selected.(Only for Question type & Chapter wise test)
Header Footer Settings: Here you can define header & footer as per your requirement

- Include Header / Footer
- Header File: D:\TestGenerator\Header.docx
- Footer File: D:\TestGenerator\Footer.docx
- Set Header Text
  - Left Top
  - Center Top
  - Right Top
- Set Footer Text
  - Left Bottom
  - Center Bottom
  - Right Bottom
- Set Watermark
  - Include WaterMark
  - Watermark Text: Techieor
Borders-Margins—

You can set border margins for test as well as page borders for exported test.
SAMPLE TEST PAPER:

Techior Solution Pvt Ltd
PRACTICE TEST PAPER-1
(Class XII Board)

TIME: 02:00 hrs
DATE: 01/01/2017

BIOLOGY (THEORY)

All questions are compulsory.

(i) There is no overall choice. However, an internal choice has been provided in one question of 2 marks, one question of 3 marks and all three questions of 5 marks each. You have to attempt only one of the choices in such questions.

(ii) Questions 1 to 5 are very short answer type and carry 1 mark each. (iv) Questions 6 to 10 are short answer type and carry 2 marks each.

(iii) Questions 11 to 22 are short answer type and carry 3 marks each.

(iv) Question 23 is a value based question and carry 4 marks.

(v) Questions 24 to 26 are long answer type and carry 5 marks each. (viii) Use of calculators is not permitted.

(ix) You may use the following values of physical constants wherever necessary:

Section A

Q1. VERY SHORT DESC

1) What is the hallmark of Watson and Crick model?
   (M:1)
2) Name the innermost wall layer which nourishes the developing pollen grains.
   (M:1)
3) What is MOET? How many eggs are produced at a time by the cow after administration of hormones in this method of controlled breeding experiment?
   (M:1)
4) What is (insert correct term), inactivation?
   (M:1)
5) Write down two features of Neanderthal man.
   (M:1)

Section B

Q1. SHORT DESC - 25 WORDS

1) (a) What does “Gause’s Competitive Exclusion Principle” state?
   (M:1)
   (b) Co-existence of closely related species in the same habitat can occur by which process?
   (M:1)
2) (a) Name the type of biodiversity represented by 10,000 different strains of rice in India.
   (M:1)
   (b) How many national parks and wildlife sanctuaries are there in India?
   (M:1)
3) Answer the questions for a cross between heterozygous tall pea plant having yellow seed with homozygous recessive plant.
   (a) How many kinds of phenotypes are obtained?
   (M:1)
4) List the natural methods of contraception and explain periodic abstinence.
   OR
   What is adaptive radiation? Give an example.
   (M:1)
5) Rearrange the following groups of plants in an ascending evolutionary scale.
   (M:1)
Section C

Q 1. MED DESC. - 50 WORDS (16*1=16 Marks)

1) Why are grasshopper and drosophila said to show male heterozygosity?
2) Give an account of ecosystem services.

OR

In the structure of transcription unit given below:

A

B

3’ ← Transcription start site → 5’

5’ ← 3’

(a) Identify ‘A’ and ‘B’.
(b) What is coding strand in DNA?

(M1)

3) (a) What is BOD?
(b) How is it related to quality of water?

(M1)

4) Differentiate between incomplete dominance and co-dominance.

(M1)

5) (a) Draw the diagram of eight-nuclelated embryo sac.
(b) Which cellular thickening in the embryo sac plays important role in guiding pollen tube inside ovule?
(c) Which cells are present towards chorial end in embryo sac?

(M1)

6) Following is a diagrammatic representation of recombinant DNA technology.

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7) What is full form of AIDS? How does transmission take place and which cells do they affect? (M:1)
8) (a) Bottled fruit juices are clearer as compared to those made at home. Explain.
(b) Name the enzyme produced by Streplococcus used in medical science. (M:1)
9) (a) What is the source of morphine? Which receptors do they bind to?
(b) Define inbreeding depression. Which technique helps to overcome inbreeding depression? (M:1)
10) State the theory of spontaneous generation of life. Who disproved this theory and how? (M:1)
11) Draw a schematic representation of spermatogenesis at the different stages of life in human male. (M:1)
12) Identify A, B, C in the following table.

<table>
<thead>
<tr>
<th>Crop</th>
<th>Variety</th>
<th>Insect Pest</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>Brassica</td>
<td>Pusa Gaurav</td>
</tr>
<tr>
<td>(ii)</td>
<td>Flat Bean</td>
<td>Pusa Sem 2</td>
</tr>
<tr>
<td>(iii)</td>
<td>C</td>
<td>Pusa Sawan</td>
</tr>
</tbody>
</table>

13) Mrs. Kumar was eager to know the sex of the foetus, which her daughter-in-law was carrying. She was so anxious that she could pay any amount for that. The doctor refused to disclose the result of the test.
(a) What values did the doctor show?
(b) How can one know the sex of foetus? How is it done?
(c) Why is disclosing the sex of the foetus banned in our country? (M.1)

14) (a) At what many levels regulation of gene expression can be performed? In prokaryotes which is predominant site of gene expression?
(b) Explain the lac operon in E. coli.

15) Expand the following abbreviations with reference to HGF.
(i) ESTs
(ii) YAC
(iii) BAC
(iv) PDB

16) Give five important goals of HGF

17) Give diagrammatic sectional view of female reproductive system. Explain the structure of ovary.

18) Write down the role of restriction endonuclease enzymes in r-DNA technology. Explain the separation and isolation of DNA fragments.

19) (a) Write causative organism of typhoid and amoebiasis
(b) Explain active and passive immunity with example.
(c) Differentiate between primary and secondary lymphoid organs.

20) (a) Draw a well labelled diagram of structure of an antibody molecule, representing antigen binding sites, light and heavy chain and N- and C- terminal ends.
(b) What do you understand by cytokine barriers?
(c) Today more and more children in metro cities of India suffer from allergies and asthma. Why? Name the chemicals released during allergic reactions. Also mention the drugs used to reduce the symptoms of allergy.

Use the “List View” button at any time to see the listing of all the tests that have been prepared in the past.
How to generate a Template:
Generating a template is very similar to generating a test. All the selections that a user has to make are the same. The only difference is that in case of a template, the settings (which include the board, class, subject, chapter, type of test, marks/questions, duration) are all saved. If the user wants to generate a question paper which has the same pattern as the template, then he can simply select Test -> Add and select the template name from
the drop down. Just give a name to the test and click “Generate” to generate the question paper. Templates are very useful when you want to frequently generate question papers which have the same pattern. You can simply define a template for the pattern that you need, and use it repeatedly to generate papers.

How to connect to a different database:
Click on “Configuration” from the bottom left menu.
By default, “Database” tab is chosen on the top left menu. Now click on “Browse” to choose the path of the database file and click on “Connect”.

Confirmation message will pop-up if database connection is successful.
Click “Ok” to confirm the connection. The path of the database to which you are connected is shown on top of the screen at all times.

**How to perform data Backup:**

It is important to take regular backup in order to save your data in case of any failure like disk crash or virus attack.

Click on “Configuration” from the bottom left menu.
Select “Backup & Restore” tab from top left menu. Now in Backup section, click on “Browse” to choose the destination path where the database is to be backed-up and click “Go”. The database (along with all images and media files) gets copied to the selected location.

The following confirmation window pops up to indicate that the backup is done successfully.
How to restore data:

In case your database ever gets corrupted, deleted or is lost due to disk crash or virus attack, you can restore data from a previously backed-up database. Click on “Configuration” from the bottom left menu.
Select “Backup & Restore” tab from top left menu. In Restore section, click on “Browse” button to select the folder where the backup was taken. Choose the “db” folder where the database was backed-up and click “Go” to restore.

The following confirmation window pops up to indicate that the restore is done successfully.
How to set Backup Reminders:

You can configure Test Generator to give you automatic reminders for taking data backup.

Click on “Configuration” from the bottom left menu. Select “Backup & Restore” and go to “Backup Reminder” section. Tick the checkbox for “Remind me about backup”. Enter a value in the range 1 to 10 in the box and click Save. The following confirmation message pops up.
How to add/edit/delete a User:

There are two roles that a user can have:

**Admin User**: A user with admin rights has access to the complete data. He can add/edit/delete boards, classes, subjects, chapters, flashcards, questions, tests and templates.

**Normal User**: A normal user can only access the subjects assigned to him. A normal user **cannot** add/edit/delete boards, classes and subjects. A normal user can only add chapters, questions and flashcard in the subjects to which he has been given access. He can also generate tests and templates from subjects to which he has been given access.
Select the “User Management” tab on the left bottom pane. This opens up the user management list form in the right pane.

The “Add” tab allows you to add a new User Name. Click on this tab to open the User Entry form.

In the User Entry form, enter the User ID, User Name, and Password that you want to add.

If you want the user to play the role of admin, then check the “Admin” checkbox. An admin user will have access to all the board(s) / class(es) / subject(s).
In case of a normal user (non-admin), you can select the subjects to which the user needs access from the “Available Subject List”, click “>>” to add subjects to “Allowed Subject List”.

Press “Save” symbol at the bottom of the page to save the user details.

The “Edit” tab allows you to edit the selected user. Select the user which you want to change and press the “Edit” tab. Then make the required changes and press the “Save” symbol.

The “Delete” tab allows you to remove/delete a user from your database. Select the user which you want to delete and press the “Delete” tab. A confirmation window appears asking you to confirm your action. Press “Yes” if you are sure that you want to delete the selected user.
How to change password for a User:

Click on “User Management” Section.
Select the user and click “Edit”.
Click on “Change Password” Section.
Enter “New Password” and re-type the new password in “Confirm New Password”, then click on “Change Password”. A Confirmation Message Box is pops-up when the new password is saved.