



**STATE BANK OF PAKISTAN**  
**FINANCE DEPARTMENT**  
**I.I. Chundrigar Road**  
**KARACHI**

FD Circular No. 1/ 2014

9<sup>th</sup> September, 2014

**The President/Chief Executive**  
**All Banks**

Dear Sir/Madam,

**Circular on Machine Fitness Sorting Parameters of**  
**Pakistan Rupee Banknotes**

State Bank of Pakistan has the responsibility to ensure provision of high quality clean banknotes to the general public. In this regard, State Bank of Pakistan has increased efforts to overcome problems related to collection, sorting and replacement of soiled notes and to provide clean notes to the general public. In order to implement machine sorting of banknotes, State Bank of Pakistan is issuing machine fitness sorting parameters of Pakistan Rupee banknotes. SBP is moving from manual to machine sorting of banknotes and we expect that commercial banks will also move from manual to machine sorting of banknotes in due course.

The Machine Fitness Sorting Parameters will ensure that banknotes will be sorted through a defined criteria leading to standardization in sorting of clean and soiled notes. Machine sorting will lead to quicker processing of banknotes resulting in timely availability of clean banknotes to the general public.

Machines Fitness Sorting Parameters of Pakistan Rupee banknotes are enclosed.

Please acknowledge receipt.

Yours faithfully,

(Riaz Nazarali Chunara)  
Director

# **Machine Fitness Sorting Parameters of Pakistan Rupee Banknotes**

(Issued vide Circular No.1/2014 dated 9<sup>th</sup> September, 2014)



**STATE BANK OF PAKISTAN  
FINANCE DEPARTMENT**

## **Machine Fitness Sorting Parameters of Pakistan Rupee Banknotes**

The following parameters provide minimum standards for machine sorting of Pakistan Rupee banknotes. Authenticity check is the prerequisite for sorting of banknotes into re-issuable and unfit notes. The fitness sorting criteria will provide benchmarks to machines to identify and separate banknotes into fit and unfit notes in a reliable and consistent fashion.

Pakistan Rupee banknotes are to be sorted<sup>1</sup> as per the following criteria:

**Table 1: List of Fitness Sorting Parameters**

<b>S. No</b>	<b>Defect</b>	<b>Description</b>
1	Repaired/Taped Notes	A banknote consisting of parts of notes joined together using adhesive tape or glue to make a whole.
2	Crumples	Folds/creases reducing the length or width of note.
3	De-inked note	Complete or partial fading out in coloration.
4	Desecrated portrait	Portrait of Quaid-e-Azam desecrated or carrying slogans.
5	Folded Corners/ Dog-Ears	Folded edge of the note including chipped corners.
6	Stains & Graffiti	Stains of any kind, drawing of image(s) or lettering written or marked in any manner on a note.
7	Holes	Holes/perforation of any kind.
8	Soiling	Accumulation of layer of dirt and/or sebum across the note.
9	Limpness	Lack of crispness, stiffness and intaglio feel of the note.
10	Tears	Cuts on any side of the note.

---

<sup>1</sup> Quantitative measurements/ parameters mentioned in different sorting criteria have been assessed manually only.

## Details of Fitness Sorting Parameters

### **(1) Repaired/Taped Notes:-**

When parts of notes are repaired/ joined together by using extraneous matter such as tape or glue in order to create a whole then such a note is classified as a repaired or taped note. Repairs on notes covering an area greater than 100 mm<sup>2</sup> and where the thickness of the extraneous matter is more than 50 µm thick<sup>1</sup> (thickness of tapes ranges from 20 µm for typical office tape to 50 µm for duct tape) shall be sorted as unfit.

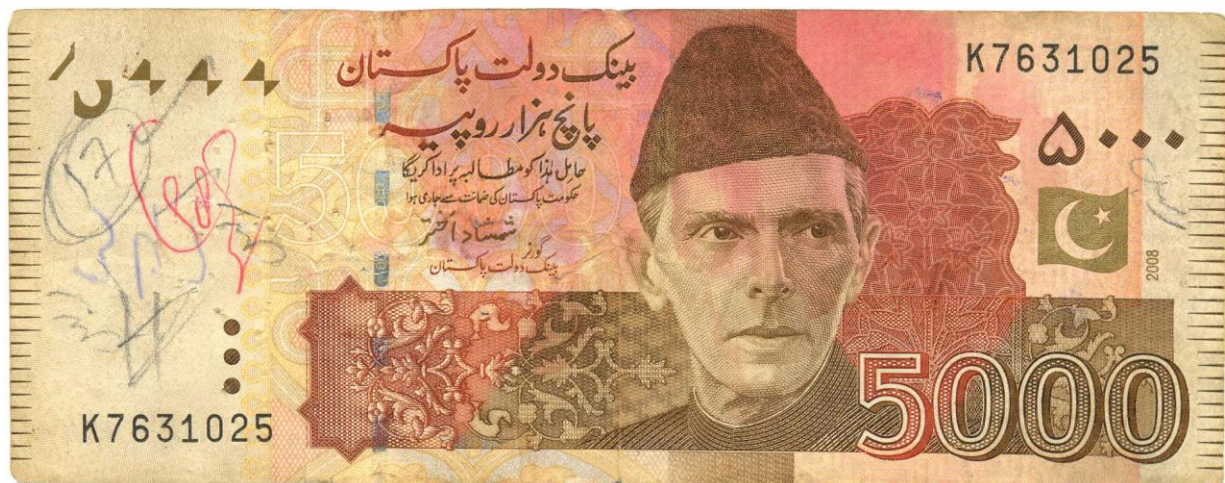
### **(2) Crumples:**

Crumpled/folded notes result in reduction of original note in length or width. If the fold results in reduction of the original note in length or width<sup>1</sup> by greater than 5 mm then the note will be classified as unfit note.



### (3) De-inked note:

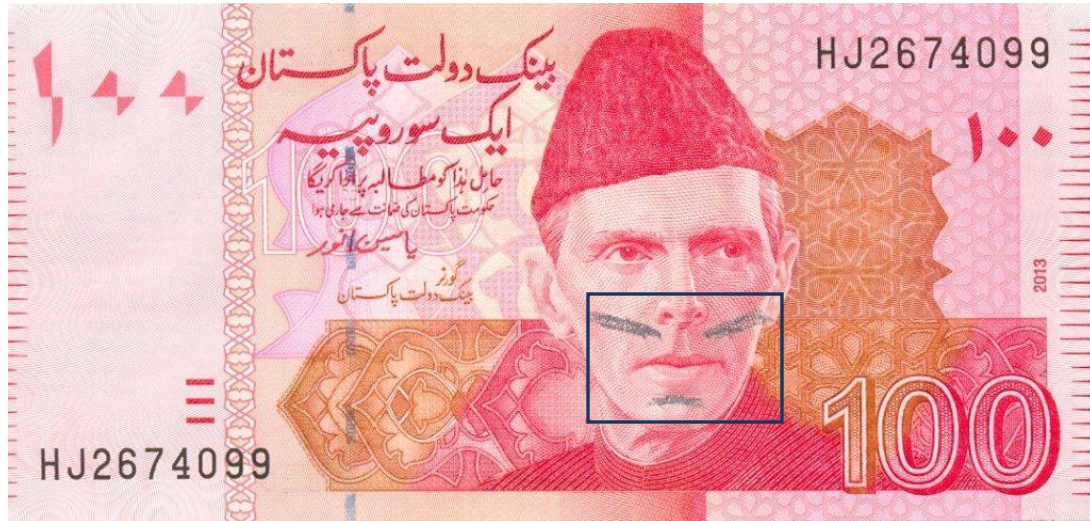
De-inking of banknotes can occur, for example, in case where they have been washed or subjected to aggressive chemical agents. De-inked notes shall be sorted as unfit if the ink is partially or wholly missing from its surface. Both the obverse and the reverse of the note shall be checked for de-inking.





#### (4) Desecrated portrait:

Banknotes with portrait of Quaid-e-Azam desecrated or carrying inscriptions of political\ethnic slogans should be treated as illegal/unfit banknote.



#### (5) Folded Corners/ Dog-Ears:

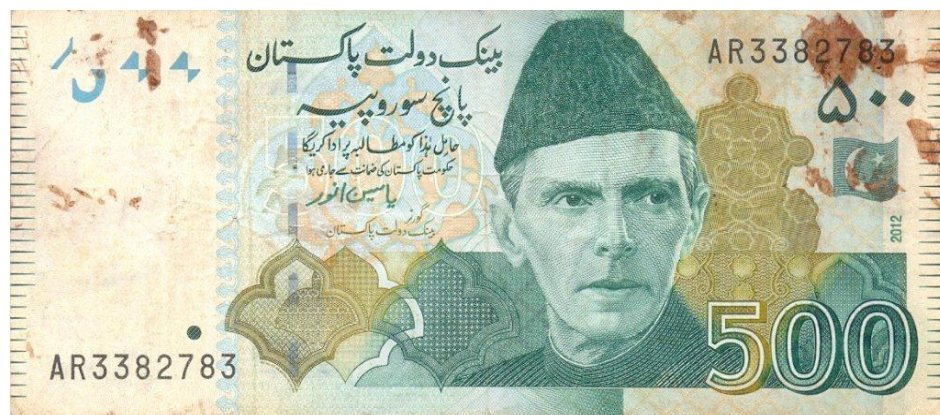
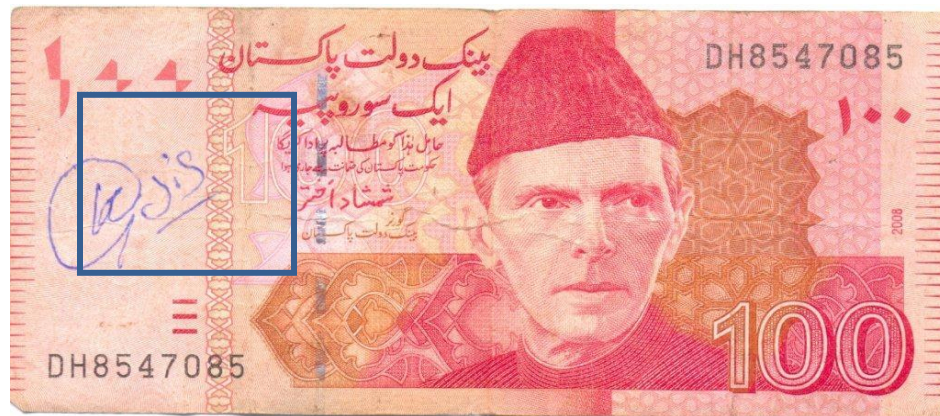
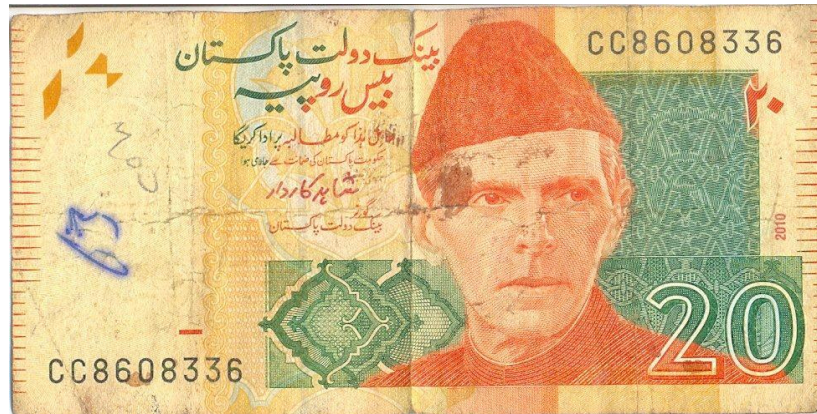
Notes having folded corners/dog-ears with an area of more than 150 mm<sup>2</sup> shall be sorted as unfit<sup>1</sup>. Chipped notes shall also be sorted as unfit.





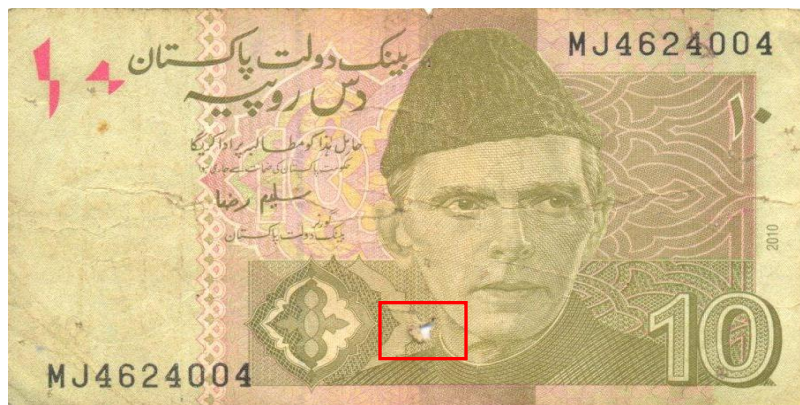
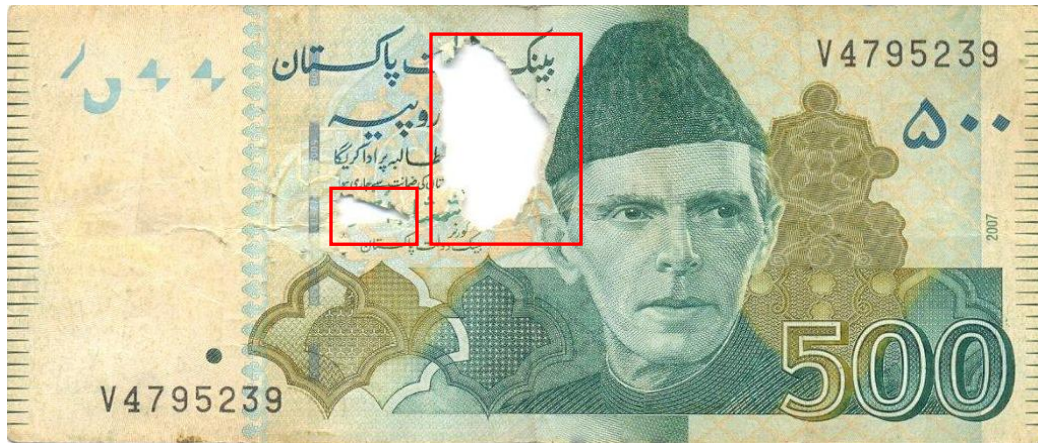
## (6) Stains & Graffiti:

Graffiti is writing and drawings of figures or letters on the surface of the banknotes. Notes with graffiti or stains shall be sorted as unfit. In case the total area covered by graffiti/stains exceeds  $600 \text{ mm}^1$ , the note shall be sorted as unfit. Both the obverse and the reverse of the note shall be checked for graffiti.



**(7) Holes:**

Note having a hole with area<sup>1</sup> exceeding 10 mm<sup>2</sup> shall be sorted as unfit.





### (8) Soiling:

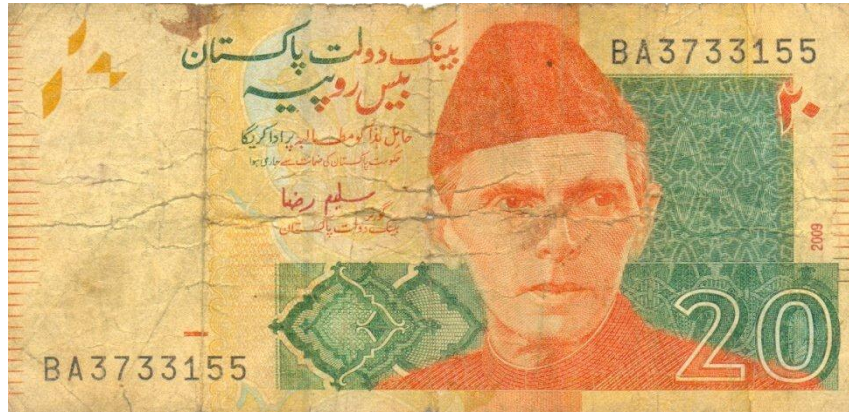
Soiling is accumulation of layer of dirt/ sebum across the entire note or parts of it. Both the obverse and the reverse of the note shall be checked for soiling.



The appropriate places to check the level of soiling are non-printed areas of banknotes both on front and back side.

### (9) Limpness:

Banknotes having lack of crispness, stiffness and intaglio feel due to excessive wearing in circulation shall be sorted as unfit, as far as possible.





## (10) Tears:

Notes with vertical/ horizontal tears exceeding the following widths and lengths shall be sorted as unfit:

**Table 3: Tears<sup>1</sup>**

S No	Direction	Width	Length
1	Vertical	5 mm	10 mm
2	Horizontal	5 mm	15 mm

