8.6 SCHEME OF MARKING
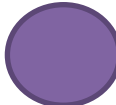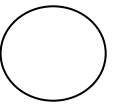
- **Each correct response will get a score of 1 mark.**
- **Each incorrect response will get a score of - ⅓ (minus-one-third).**
- **No credit will be given for the questions not answered or marked for review (Please see Annexure-5 on Online Examination)**

CORRECT	WRONG	FOR REVIEW	NOT ANSWERED
✔	✖	⬤	◯
+1	**- ⅓**	**0**	**0**

- **The score such obtained will be the Raw Score that will be used to determine Percentage score and percentile [for the purpose of Eligibility using Cut-Offs] and Normalization [for the purpose of determining Merit / Ranking].**

IMPORTANT

If any discrepancy in any question is found in the Entrance Examination, the candidate is advised to write to Associate Dean (Exam.), AIIMS, New Delhi 110 608 within 24 hours by email :
subdeanexamsaiims@hotmail.com
However, for other purposes write to Asstt. Controller (Exams) on aiims.mbbsexam2019@gmail.com

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8.7 MINIMUM CUT-OFF SCORES

In accordance with decision of the Governing Body, AIIMS, New Delhi dated 26.11.2009 and the past practice adopted by AIIMS, New Delhi, the minimum cut-off necessary in the Entrance Examination to determine eligibility for admission is:

General Category	:	**50%**
OBC (Non Creamy Layer)	:	**45%**
SC / ST	:	**40%**
PWBD	:	**Cut-offs of the respective category**

Since the examination will be held in two days in two shift per day, a Normalization Procedure will be used (see 8.8); the Percentile score corresponding to the above cut-offs will be used to determine eligibility. In the event of the percentiles for the four shifts in two days being dissimilar / unequal, the lower of the four will be the eligibility cut-off for that category for all candidates (i.e. all shifts).

For example if the 50% marks correspond to a Percentile score of 90 in Shift 1 , 92 in Shift 2 , 89 in Shift 3 and 88 in Shift 4 then all those equal to or above 88 Percentile (Percentile score of 100 to 88) in all shifts will become eligible in General Category. Similar method will be adopted for the other categories to determine eligibility cut-offs. In case the examination is held in lesser number of shifts the same principle shall apply.

8.8 NORMALIZATION PROCEDURE

This year, since there would be two shifts per day, a Normalization Procedure is being adopted as decided by experts based on analysis of past MBBS Entrance Examinations conducted by AIIMS, New Delhi. This will be utilized to decide on the inter-se merit / ranking [used during Online Seat Allocation / Counseling for allotment of seats] between those who appeared for the examination.

The normalization procedure that will be adopted is based on PERCENTILES.

Percentile Scores

Percentile scores are scores based on the relative performance of all those who appear for the examination. Basically the marks obtained are transformed into a scale ranging from 100 to 0 for each group (shift) of examinees.

The Percentile Score indicates the percentage of candidates that have scored EQUAL TO OR BELOW (same or lower raw scores) **that particular Percentile in that examination. Therefore the topper (highest score) of each group (shift) will get the same Percentile of 100 which is desirable. The marks obtained in between the highest and lowest scores are also converted to appropriate Percentiles.**
The Percentile score is the Normalized Score for this examination.

The Percentile Scores will be calculated to 7 decimal places to avoid bunching effect and therefore reduce ties.

In this method of scoring the HIGHEST SCORE in each paper (irrespective of the raw scores / percentage obtained) will be the 100 Percentile indicating that 100% of candidates have scores *equal to or lesser than* the the highest scorer/ topper for that shift. For example, in Shift 1 if the highest score is 80%, in Shift 2 the highest score is 82%, in Shift 3 the highest score is 78% and in shift 4 the highest score is 79%, **all the highest scores** would be normalized to 100 Percentile for their respective group / shift.

The lowest score would have a percentile depending on the total number of candidates who have taken the examination. Supposing 100000 students have taken the examination in a Shift and the highest score (A) for that group / shift is 160 / 200 (80%) and the lowest score (B) is – 3/ 200 (-1.5%). If there is no other candidate who has scores equal to either A or B, then the Percentile Score of A, the top scorer, shall be 100 [because all or 100% of candidates have scored EQUAL TO OR LESS THAN A]. The Percentile Score of B, the lowest scorer, shall be 0.001 since the percentage of candidates with scores EQUAL TO OR BELOW would be 0.001 [(1/100000)*100]. If another candidate (C) had a raw score similar to that of A, then both A and C would have a Percentile Score of 100. Similarly if another candidate (D) had a raw score equal to that of B then both B and D would have a Percentile score of 0.002 [(2/100000)*100]. Ties would therefore have similar Percentiles.

The following is a further explanation of the interpretation of the scores in an examination (such as one shift) with **100 candidates**.

- If candidate A's Percentile score is 100, it indicates that amongst those who have taken the examination, 100% have scored either EQUAL TO OR LESS THAN the candidate A. It also indicates that no candidate has scored more that candidate A.
- If candidate B's Percentile score is 90, it indicates that 90% of the candidates who have taken the examination have scored either EQUAL TO OR LESS than candidate B. It also indicates that remaining candidates have scored more than candidate B.
- If candidate C's Percentile score is 50, it indicates that 50% of the other candidates who have taken the examination have scored either EQUAL TO OR LESS than candidate C. It also indicates that remaining half of those who took the examination have scored more than candidate C.
- If candidate D's Percentile score is 30, it indicates that 30% of the candidates who have taken the examination have scored either EQUAL TO OR LESS than candidate D. It also indicates that remaining have scored more than candidate D.
- If candidate E's Percentile score is 1, it indicates that none of the candidates who have taken the examination have scored either EQUAL TO OR LESS than candidate E. It also indicates that all remaining candidates who took the examination have scored more than this candidate .

8.9   METHOD OF RESOLVING TIES

The overall merit / ranking shall be based on the Percentile scores of the Total Raw Scores.
The method adopted for breaking ties (similar Percentiles) shall be:

1. Biology: Higher Percentile scores in Biology will result in higher ranking
2. Chemistry: If Biology Percentiles do not break the tie, higher Percentile scores in Chemistry will result in higher ranking
3. Physics: If Biology and Chemistry Percentiles do not break the tie, higher Percentile scores in Physics will result in higher ranking
4. Age: If Biology, Chemistry, Physics Percentiles do not break the tie, the candidate elder by age will be ranked higher

8.10   BRIEF DESCRIPTION OF THE STEP-BY-STEP PROCEDURE FOR NORMALIZATION AND OF MERIT / RANKING IN THE AIIMS MBBS ENTRANCE EXAMINATION 2019

1. Distribution of Examinees in two shift per day

Applicants would be allotted into four groups randomly such that these groups are approximately equal in number. These four groups would be First, Second shifts on Day 1 and Day 2 . In the event of lesser number of shifts, the candidates will be divided accordingly. This will ensure that there is no bias in the distribution of candidates who take the examination.

Further, with a large population of examinees spread over the entire country such possibility of a bias becomes remote.

2. Preparation of Results for each Shift

The examination results for **each shift** would be prepared in the form of
Raw Scores
Percentages
Percentiles **(up to 7 decimal places) separately** for each of the four subjects (Biology, Physics, Chemistry and General Knowledge) and the Total. *The Percentile of the Total shall **not** be an aggregate or average of the Percentile of individual subjects.*

The following 5 Percentiles would be calculated for each student
Let T, S1, S2, S3, S4 denote the raw marks obtained in Total, Biology, Chemistry, Physics and General Knowledge:

Total Percentile (TP):
$$100 \times \frac{\text{No. of candidates from the group with TOTAL MARKS} \leq T}{\text{No. of candidates in the group / shift}}$$

Biology Percentile (S1P):
$$100 \times \frac{\text{No. of candidates from the group with BIOLOGY} \leq S1}{\text{No. of candidates in the group / shift}}$$

Chemistry Percentile (S2P):
$$100 \times \frac{\text{No. of candidates from the group with CHEMISTRY} \leq S2}{\text{No. of candidates in the group / shift}}$$

Physics Percentile (S3P):
$$100 \times \frac{\text{No. of candidates from the group with PHYSICS} \leq S3}{\text{No. of candidates in the group / shift}}$$

General Knowledge Percentile (S4P):
$$100 \times \frac{\text{No. of candidates from the group with GENERAL KNOWLEDGE} \leq S4}{\text{No. of candidates in the group / shift}}$$

3. Preparation of Overall Rank / Merit List

The Percentile scores for the Total Marks for both shifts as mentioned above would be merged and arranged so as to derive an overall Merit List / Ranking.

Please Note that the percentile score is not the same as percentage of marks obtained.

4. Resolving Ties

In case of a tie (identical Total Percentile) the order of deciding higher rank / merit would be: Percentile in Biology, Percentile in Chemistry, Percentile in Physics, Percentile in General Knowledge, elder by age.

Example of a hypothetical scenario in the preparation of Overall Ranking / Merit

1. Assuming there are 100000 candidates in each shift the Hypothetical Ranking would be :

PERCENTILE : SHIFT 1 on DAY 1					
ROLL NO	**TOTAL**	**Biology**	**Chemistry**	**Physics**	**General Knowledge**
A1015	100.0000000	99.9872345	100.0000000	100.0000000	100.0000000
A1020	99.9872385	100.0000000	99.9872345	99.8957721	99.9872365
A1050	99.9872345	100.0000000	99.9872345	99.8956720	99.9872345
↓	↓	↓	↓	↓	↓
A1001	0.0010000	0.0010000	0.0010000	0.0010000	0.0010000

The Percentiles in Shift 1 on Day 1 is calculated separately for the Total marks and the four subjects. The Percentile for the Total is NOT the aggregate nor the average of the Percentiles of each subject

2. A similar Table has been prepared for Shift 2 on day 1 and two shifts on Day 2

PERCENTILES : SHIFT 2 on Day 1					
ROLL NO	TOTAL	Biology	Chemistry	Physics	General Knowledge
B2050	100.0000000	99.9872340	100.0000000	99.9872347	100.0000000
B2035	100.0000000	100.0000000	99.9872345	99.8956721	99.9872345
B2020	99.9872355	100.0000000	99.9872340	99.8956721	99.9872345
↓	↓	↓	↓	↓	↓
B2041	0.0010000	0.0010000	0.0010000	0.0010001	0.0010000

PERCENTILES : SHIFT 1 on Day 2					
ROLL NO	TOTAL	Biology	Chemistry	Physics	General Knowledge
C3105	100.0000000	99.9872340	100.0000000	99.9872345	100.000000
C3220	99.9972345	100.0000000	99.9898345	99.8956721	99.987264
C3641	99.9872355	100.0000000	99.9872345	99.8956721	99.9872324
↓	↓	↓	↓	↓	↓
C3044	0.0010000	0.0010000	0.0010000	0.0010001	0.0010000

PERCENTILES : SHIFT 2 on Day 2					
ROLL NO	TOTAL	Biology	Chemistry	Physics	General Knowledge
D4240	100.0000000	99.9872332	100.0000000	99.9972345	100.0000000
D4132	99.9999991	100.0000000	99.9898345	99.8756721	99.9972331
D4332	99.9823156	100.0000000	99.9972045	98.5672107	99.9865840
↓	↓	↓	↓	↓	↓
D4511	0.0010000	0.0010000	0.0010000	0.0010001	0.0010000

3. The next step would be to merge the results of all four shifts using the using the **Percentiles of Total** for ranking.

ROLL NO	TOTAL
A1015	100.0000000
B2050	100.0000000
B2035	100.0000000
C3105	100.0000000
D4240	100.0000000
D4132	99.9999991
C3220	99.9972345
A1020	99.9872385
B2020	99.9872355
C3641	99.9872355
A1050	99.9872345
D4332	99.9823156
A1001	0.0010000
B2041	0.0010000
C3044	0.0010000
D4511	0.0010000

Ties — (A1015, B2050, B2035, C3105, D4240)

Ties — (B2020, C3641)

Ties — (A1001, B2041, C3044, D4511)

4. Please note that there are some candidates with same Percentile Scores (Ties). In the next step the ties would be resolved with the sequential application of Percentile Scores of
• Biology
• Chemistry
• Physics
• Date of Birth (age)

Each of the above would be taken into consideration in the above sequence till the tie is resolved

Note: Percentile of General Knowledge and Aptitude are not taken into consideration for resolving ties.

The Final Ranking /Merit would be prepared after using resolving ties:

ROLL NO	TOTAL	BIOLOGY	CHEMISTRY	PHYSICS	AGE	REMARKS
B2035	100.0000000	100.0000000				Total Percentile equal but Biology Percentile of B2035>A1015>B2050, C3105,D4240
A1015	100.0000000	99.9872345				
B2050	100.0000000	99.9872340	100.0000000	99.9872347		Total, Biology & Chemistry Percentiles equal but Physics Percentile of B2050>C3105
C3105	100.0000000	99.9872340	100.0000000	99.9872345		
D4240	100.0000000	99.9872332				Total Percentiles equal but Biology Percentile of B2035>A1015>B2050, C3105>D4240
D4132	99.9999991					Total Percentile D4132>C3220>A1020
C3220	99.9972345					
A1020	99.9872385					
C3641	99.9872355	100.0000000	99.9872345			Total and Biology percentiles equal. Chemistry Percentile C3641>B2020
B2020	99.9872355	100.0000000	99.9872340			
A1050	99.9872345	100.0000000	99.9872345	99.8956720		Total Percentile A1050>D4332
D4332	99.9823156	100.0000000	99.9972045	98.5672107		
↓	↓	↓		↓	↓	↓
A1001	0.0010000	0.0010000	0.0010000	0.0010000	22/01/2000	Since Total, Biology, Chemistry and Physics Percentiles are equal, according to Date of Birth, age of A1001>B2041>C3044 > D4511
B2041	0.0010000	0.0010000	0.0010000	0.0010000	03/02/2000	
C3044	0.0010000	0.0010000	0.0010000	0.0010000	30/10/2001	
D4511	0.0010000	0.0010000	0.0010000	0.0010000	20/11/2001	

4. The Final Ranking / Merit:

RANK	ROLL NO
1	B2035
2	A1015
3	B2050
4	C3105
5	D4240
6	D4132
7	C3220
8	A1020
9	C3641

RANK	ROLL NO
10	B2020
11	A1050
12	D4332
↓	↓
399997	A1001
399998	B2041
399999	C3044
400000	D4511

5. It may be noted that for the purpose of Online Seat Allocation / Counseling and subsequent admission to any of the AIIMS, the candidate is required to obtain the minimum qualifying criteria as described under 8.7 on page 13.

SUMMARY OF EXAMINATION PATTERN
(Please see the text for details and explanations)

01	Mode of Examination	**Computer Based Test (CBT) [Online]**
02	Duration of Examination	**3½ hours (Three hours and thirty minutes)**
03	Date of Examination	**Saturday 25th May, 2019 & Sunday, 26th May, 2019**
04	Number of Shifts	**02 (Two) per day *[Tentative]***
05	Timing of Examination	**First Shift : 09.00 AM to 12.30 PM** **Second Shift : 03.00 PM to 06.30 PM**
06	Allocation of shift	**Random**
07	Location of Examination Centres	**Tentatively 155 cities in India**
08	Language of Paper	**English / Hindi**
09	Type of Examination	**Objective Type**
10	Number of Questions	**One Paper of 200 (Two hundred)**
11	Type of Objective Questions	**Multiple Choice Questions (MCQs)** **Reason Assertion**
12	Distribution of Questions	**Physics : 60** **Chemistry: 60** **Biology (Botany & Zoology) : 60** **General Knowledge : 10** **Aptitude and logical thinking: 10**
13	Distribution of Type of Questions	**MCQs 140** **Reason Assertion: 60*** ***[*All subjects except General Knowledge/Aptitude]***
14	Marking Scheme	**Correct Answer :** One mark **(+)1** **Incorrect Answer:** Minus one-third **(−)1/3** **Unanswered / Marked for Review : 0**
15	Method of Cut-Off	**Percentile corresponding to following Percentages : General 50%, OBC (Non-Creamy Layer) 45%, SC /ST 40%. In case percentile of all shifts are unequal the lower percentile of all shifts shall be the cut off. (Details on page 11)**
16	Method of determining merit	**Overall merit by merging of Percentiles of Total scores of each shifts [First & Second shifts]**
17	Method of resolving ties	***In the following order:*** **Percentile in Biology** **Percentile Chemistry** **Percentile in Physics** **Seniority by age**

17