

Evolution of Examination System of Bangladesh College of Physicians & Surgeons

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Abstract:

Bangladesh College of Physicians and Surgeons (BCPS) is the pioneer in pertaining postgraduate medical education and training in this country since its establishment on 6th June 1972. With tremendous effort from the founder Fellows, the BCPS was able to hold the first post-graduate examination in July 1972. In 1972, examination started with FCPS part I, II and MCPS Exam with four subjects. After 50 years journey of BCPS up to January 2022, number of fellows are 7479 and subjects of fellowship is 59. We have searched different papers and electronic documents of examination department of BCPS including year book and found that BCPS went through

various changes occurred in different aspects of examination systems including number of subjects. Introduction of OSPE, SBA, IOE and omission of viva are the epoch-making steps of BCPS. Punctuality is the beauty of BCPS. But, at the era of golden jubilee of BCPS, our realization is that our examination system yet not structured and standardized up to the mark. We hope, BCPS will make a new horizon by overcoming all obstacles in future.

Key words: Journal, JBCPS, Evolution, Journey

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Introduction

Following the independence of Bangladesh in 1971, on the initiative of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman who was the Prime Minister of the People's Republic of Bangladesh at that time, Bangladesh College of Physicians & Surgeons (BCPS) was established by a Presidential Order on 6th of June 1972. Later on 28th January 2018 the ordinance has been passed as law by the parliament of the People of Bangladesh 2018, All Fellows of College of Physicians & Surgeons Pakistan (CPSP) who hailed from Bangladesh were admitted as founder Fellows of the College. BCPS became the first post graduate medical examination body in Bangladesh which started its journey from a House of Dhanmondi-3. With tremendous effort from the Fellows, the BCPS was able to hold the first post-

graduate examination in July 1972. In 1982 BCPS shifted to Mohakhali which is its current location.

Postgraduate medical education aims to produce specialists in various branches of medical science. Bangladesh College of Physicians and Surgeons (BCPS) has been the pioneer in pertaining postgraduate medical education and training in this country. The College has played a unique role in producing specialists in various disciplines of medical science who are working as medical teachers, specialists and consultants throughout the country as well as in abroad. Examination department of BCPS is working to conduct examinations for fellowship in the major subjects as well as in the sub-specialty and membership for many subjects. Publication of results is pioneer work of exam department. Due to the changing pattern of postgraduate medical education and training day by day in the world, BCPS also went through different evolution of examination system and training programme to cope with the modern world.

Methodology and source: We have searched different papers and electronic documents of examination department of BCPS including year book. Searching time was Mid April to Mid May 2022. All documents were collected from registry of examination department. But, we got very few documents from 1972 to 1977. All decisions and rules were accredited by council of BCPS.

Examination system from 1972 to 2022

In 1972, examination started with FCPS part I, II and MCPS Exam with four subjects. At that time only 11, 15

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and 2 candidates were appeared in part I, II, and MCPS exam respectively. In each year, two examinations were held at 1st working day of January and July. But due to COVID pandemic, no examination was held in July 2020. In the last 50 years, various changes occurred in different aspects of examination systems including number of subjects subsequently.

Year of Starting of Examination-

- FCPS-Part I-July, 1972
- FCPS-Part II- July, 1972
- MCPS- July, 1972
- FCPS-Subspecialty with preliminary-Jan,2003
- 5-year FCPS with Midterm-Jan,2021

FCPS Part-I

i. Eligibility criteria

- Passing MBBS/ BDS
- Having permanent registration with BMDC

ii. Examination and Question Format

From 1972 to 2022, FCPS part I examinations were held with 59 subjects under the faculty of 19 disciplines now.

The examination system has been continuously updated to keep pace with modern training and evaluation system. Following changes have occurred in question format in the last 50 years which are shown below.

From 1977 – January 1988

Written Examination of 3 papers on Anatomy, Physiology & Pathology.

Table-I

Exam pattern from 1977 to January 1988

Type of question in each paper	No. of question	Marks
Group A	20	40
Group B	30	60

Each student will have to answer 50 questions in 3 hours in time. Students were attended practical and viva examination.

From July 1988 – January 1992

Written Examination of 3 papers as before. (Each paper consists of 120 questions spilt into two groups).

Table-II

Exam pattern from July 1988 to January 1992

Type of question	No. of question	Marks	Time
Q.A. Statements-True or False(Question with one stem)	20	10	Time allowed
Q. B. Most appropriate type (Question with 5 stem)	20	20	1hour 20 mins
Q. C. Write correct or False type (Question with 5 stem)	10	10	
Q. D. Matching (Question with 5 stem i.c. one side-a.b.c.d.e and other side 1.2.3.4.5)	10	10	
Total type of MCQ 4	Total question 60	Total mark 50	

Oral and Practical exam were held together.

From July 1992 – January 1994

Written Examination (Three papers)

Table-III

Exam pattern of July 1992 to January 1994

Type of question in each paper	No. of question	Marks	Time
Q.A. Statements-True or False(Question with one stem)	40	20	1 hour 30 mins
Q. B. Most appropriate type (Question with 5 stem)	40	40	
Q. C. Write correct or False type (Question with 5 stem)	10	20	
Q. D. Matching (Question with 5 stem i.c. one side-a.b.c.d.e and other side 1.2.3.4.5)	10	20	
Total type of MCQ 4	Total question 100	Total mark 100	

Oral and Practical examination were held together.

From July 1994 to January 2002

A. Written Examination (Three papers)

Table-IV

<i>Exam pattern of July 1994 to January 2002</i>			
Type of question	No. of question	Marks	Time
MCQ (True-false)			
Paper I	50 (Each question 5 stems)	100	100 mins in each paper
Paper II	50 (Each question 5 stems)	100	
Paper III	50 (Each question 5 stems)	100	
Oral and Practical were held together.			

From July 2002, Written was same as before, but Oral and Practical examination were omitted.

Pattern of questions were changed from January 2012. SBA was introduced and number of questions was increased in following fashion.

Table-V

<i>Increasing pattern of SBA</i>		
From January 2012	SBA 20%(10 questions)	MCQ80%(40 questions)
From July 2016	SBA 30%(15 questions)	MCQ70%(35 questions)
From January 2020	SBA 40%(20 questions)	MCQ60%(30 questions)
From January 2021	SBA 50%(25 questions)	MCQ50%(25questions)

iii. Assessment system

Table-VI

<i>Marking system of FCPS part-I, Examination</i>		
Up to January 2002	Pass Mark	Translocation Mark in theory 05
	Theory 50%	
	Oral & Practical 60%	
	Negative Mark 100%	
	From January 1991 to January 2002 average % of pass-8.07%	
Viva omitted from July 2002	Pass mark	Translocation Mark in theory 05
	Theory 60%	
	Negative Mark 25%	
	Average % of pass-33.67%	
Translocation mark omitted January 2003	Pass mark	No Translocation Mark
	Theory 60%	
	Negative Mark 25%	
	Average % of pass-14.84%	
July 2003	Pass mark	Translocation Mark in theory 05
	Theory 50%	
	Negative Mark 100%	
July 2004	Pass mark	Translocation Mark in theory 05
	Theory 70%	
	No Negative Mark	

iv. Moderation

Regarding moderation of part I, initially there were 4 moderators for each subject, namely, 2 subject specialists, 1 clinician, and 1 medical educationist which was need based. But now although the number of the moderator is still 4, the criteria has changed. Now there are 3 subject specialists and 1 from basic subject and also time based. Re-moderation was started in part I from July 2012 in a few selected subjects and later on it was renamed as super moderation and introduced in all subjects from July 2019.

v. Registration for appearing in the examination

The examinees had to register physically on campus. Primary Enroll number -PEN & Secondary Enroll number-SEN were introduced from 2007. Online registration and coding were started from January 2016.

vi. Introduction of OMR Sheet

Up to July 2005, OMR scan done manually thereafter scanning of OMR sheet started electronically from Jan, 2006.

vii. Publication of Result

Written examination is held in BCPS premises and results are published on the last day of examination. Previously

candidates were informed the results from notice board of BCPS but from 2004 from website & from 2014 by text message.

viii. Result of Part I examination

In July 1972, appeared examinee were 11 and percentage of pass 36.36%. In January 2022, total appeared candidates were 5877 and pass 26.78%. No. of candidates are increasing day by day which reflects the increasing tendency for post-graduation from BCPS.

ix. Result analysis

Result analysis of part I exam was started from 2008 with an aim to improve the validity & reliability of the questions. Analysed result is disseminated to the respective faculty. Discrimination index and difficulty index analysed presentation to examination committee from 2018.

FCPS Part II

In July 1972, 11 examines of four subjects appeared in first FCPS part II examination of BCPS. Only 5 was awarded fellowship. After 50 years of journey of BCPS up to January 2022 number of fellows are 7479 and subjects of fellowship is 59.

i. Question Format**Table-VII**

<i>Question Format</i>			
Year	Type of question in each paper	No. of question	Marks
Up to 1999	Long	2	2x25=50
Questions were mainly knowledge based	Short notes	2	(5x5)x2=50
From 1999	problem oriented question	2	2x25=50
Problem based questions were started	brief answer	1	5x5=25
	short note	1	5x5=25
From January 2003	problem oriented question	1	25x1=25
short answer were started	short answer	2	(5x5)x2=50
	short note	1	5x5=25
From January 2008,	problem oriented	2	2x25=50
short notes were omitted	short answer	2	(5x5)x2=50
From July 2011	Long structured question	2	2x25=50
long structured questions and short essay question were introduced	short essay question	2	(5x5)x2=50
From January 2021,	long structured essay question	1	1x25=25
long structured essay question and short answer type question were introduced	short answer type question (knowledge based)	1	5x5=25
	short answer type question (scenario based)	2	(5x5)x2=50

ii. Moderation

- Two moderators up to 2006.
- Then three moderators till date.
- Moderators are requested to submit answer key from 2015.

iii. Clinical and Oral Examination**Table-VIII**

<i>Format of Clinical and Oral Examination</i>		
	Viva Board	Clinical Examination
Up to July-2005	Two boards	Long case- Duration: 30 minutes Cross over for 20 minutes
From January -2006	One board	As before
From January 2021	Replaced by IOE almost all subjects except radiology and prosthodontics	As before

Clinical Examination:

Clinical examination held in different Institute /Medical Colleges of Dhaka. Previously clinical examination was held in one/two centres. But last few years, BCPS increased the examination centre to 14 to 15. Two sets of examiners (2 examiners in each set) in each centre for clinical examination. Senior most fellows of the centre usually is the convenor of that centre. Examination centre for examinee is selected by lottery. Each examinee have to face total 4 examiners for long case and short case. Examiners except convenor rotate the centre which is decide by lottery by the BCPS. Two observer examiners in each centre is given for observing the examination system which is the prerequisite to become an examiner. For each centre, 2 clinical organizers is selected in each centre by convenor who are awarded Fellowship for at least 5 years. Senior fellows are assigned as Censor who went to the BCPS designated centre for evaluation of examination process including centre of examination Candidates who will appear in the clinical examination, the centre will be notified to them at previous

evening of examination. Duration of long case is 30 mins and crossover is for 20 mins. Short case (at least 3 cases) was for 20 mins previously but from January 2015, 30mins is allocated for 4 short cases.

Oral Examination:

For the oral examination, the examinee had to face two boards with two examiners in each of those boards. Oral examination was held on the day of clinical examination in the BCPS premises except for a few subjects from the beginning to till July 2020. Oral examinations occurred in two boards up to July 2005 and later from January 2006 oral examinations was on one board. Oral examination was replaced by IOE from January 2021

iv. Foreign Examiners:

Foreign examiners took FCPS part II examination since 1973. Till 2020 before COVID-19 pandemic number of foreign examiners rose upto 12 to 15 in different subjects usually come in each session from UK, Pakistan, Sri Lanka, Singapore Saudi Arabia, Oman, Malaysia, Australia, etc.

Table-IX

<i>Format of OSPE & IOE</i>		
Year	OSPE	IOE
January 1998	First introduced in anaesthesiology	
July 2005	Introduced in preliminary FCPS examination	
January 2006	Introduced in FCPS part II only in 16 subjects excluding Family Medicine, prosthodontics, Transfusion Medicine	
January 2021		Introduced in FCPS part II excluding Family Medicine radiology, Transfusion Medicine and prosthodontics

v. Introduction of OSPE & IOE:

OSPE & IOE of any subject are held in same day in BCPS premises.

Table-X

<i>Screening system for clinical examination</i>		
Written	OSPE	Remarks
Up to July 2013, examiner who got grade 13 or above in written were eligible for appearing in OSPE and clinical examination		From July 2016, Grade 15 or above in written examination, his or her written exam will remain valid for next two consecutive OSPE & IOE part of examination
From January 2014, examiners with grade 14 or above were eligible for OSPE.	From January 2021, OSPE&IOE become a second screening method. Candidates getting 13 or above in OSPE are eligible for appearing clinical examination	

vi. Evolution of assessment**vii. FCPS examination Part –II attempts:**

A candidate could appear in Part –II examination for as many times as he/she wished to until July 2016, however, an amendment was made to this rule effective from January 2017. A candidate of FCPS II (Final) and FCPS (subspecialty) examination will be allowed to appear for maximum 10 (ten) times or within 7 (seven) consecutive years, whichever comes first.

Examination for subspecialty:

Candidates of subspecialty need 5 years training to complete the fellowship. Examination for subspecialty including preliminary exam, thesis and part-II exam. With the introduction of 5 year training from January 2020 this examination will be replaced by mid-term & FCPS part II exam.

i. Preliminary exam

At the end of 2 years training preliminary examination is held which comprises written, OSPE and clinical examination. No oral examination. After passing this exam they will go for training in respective subjects.

ii. Thesis

Candidates of Sub-specialty subjects will have to face thesis exam in year five.

MCPS:

In July 1972, first MCPS examination was held for 4 subjects with 2 examinees only. None was awarded

membership at that session. After 50 years of journey of BCPS up to January 2022 number of members are 3210 and subjects of membership is 16.

i. Prerequisite for MCPS

From the very beginning 1 year training is required to appear in the MCPS exam. But from July 2022, 2-year training is required.

ii. Examination Pattern: It comprises written, clinical and viva.

FCPS part-II exam (5 years program) January 2020

It comprises of

- 2 years Core Medical Training - Mid term
- 3 years speciality training
- There will be no preliminary exam any more in future.

i. Midterm:

Supervised training programs are gaining popularity day by day and this type of training is found to be more effective. So BCPS changed their strategy in their curriculum from 2020. Instead of 4 years, the fellowship program is now of 5 years. Candidate who were passing FCPS part I in January 2020 and onwards will go through the five years fellowship program (with/without course). For the first 2 years (year 1,2), every candidate will receive core training on the major subjects and speciality training for 3 years (year 3,4 & 5) in the respective subjects. For example, if a candidate is pursuing fellowship in

cardiology, then he will be required to participate in 2 years of core training in Medicine and specialty training in cardiology in the following three years.

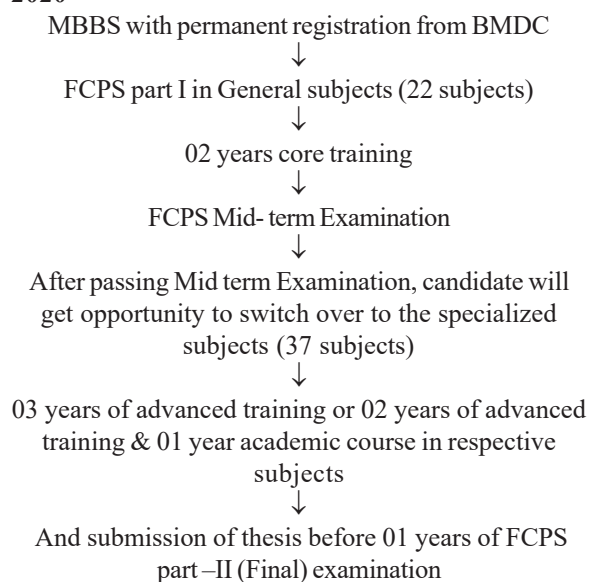
Midterm is an assessment system of core medical training, which is held after 2 years of core medical training. In this system, examination comprises only written, OSPE and OSCE, but no viva. The eligibility criteria to appear in the mid-term exam is as follows -

- a. Passing FCPS part I
- b. Two years of core training
- c. The following workshop/training programs are mandatory-
 - Information & communication technology and methodology for all trainees
 - Basic surgical skills for all trainees in surgery and allied subjects
 - Emergency obstetric care (EOC) & neonatology care(NC) for Obstetrics and Gynaecology

Student will face thesis instead of dissertation in FCPS part-II exam (5 years program). During core training, formative assessment is being done in different centres according to the rules of BCPS. However, as 5 years training started just before 2 years. So, here we discussed the summative assessment only.

Note: After passing FCPS Mid-term Examinations, candidate will get opportunity to choose relevant subjects of interest.

Journey of 5year Fellowship program from January 2020



Discussion:

Punctuality is the beauty of BCPS. Always exam starts in time. But, in the era of golden jubilee of BCPS, our realization is that our examination system yet not structured and standardized up to the mark. We are already lagging behind in preparing our self to improve our examination system of BCPS in the last 50 years possibly because it is a combined college. As a combined college, it is very difficult to implement all decisions unanimously and effectively.

Examination system is a continuous changing process in any college in the world. In 1859 Royal College of London started its MRCP examination which has taken a total U turn with the time by retrospective assessment of the system analysis. In 1893 they started numerical marking system. In 1960s the need to have a single recognised membership examination throughout the UK was recognised¹¹.

As a consequence of change in medical education and regulatory practice, MRCP (UK) successfully modified the international PACES examination in 2009 which was introduced in UK in 2001¹². During this period the pass percentage was 44.4%. In the BCPS, FCPS II pass percent in Medicine remains 10-12% in 50 years.

College of Physicians and Surgeons of Pakistan established in the year 1962. They are 60 years old College but brought a lot of changes in the examination system. Medical Education, E-Log book, Question Bank are also well developed for last 2 decades¹³. BCPS is still far away from this changes in his capacity though the process have been started

Conclusion: We hope in coming days there will be more new decision which includes 100% SBA in part-I, simulator or real patient in OSCE in midterm exam, 2 papers of written SBA, and directly observed long case examination.

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