

FEDERAL PUBLIC SERVICE COMMISSION
(Curriculum & Research Wing)

Schemes and Syllabi for Screening/Professional Tests as well as Descriptive Examination
Relating to Posts Advertised under Consolidated Advertisement No. 09/2020

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
1.	168/2020	Baker (BS-16), AFIC/NIHD, Ministry of Defence.	<p>i. Second Class or Grade 'C' Bachelor's Degree in Home Economics from a University recognized by HEC.</p> <p>ii. One (1) year diploma in baking from a recognized Institute.</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I English = 20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> • History and development of Home Economics. • Roles and responsibilities of a home economics towards family, community, and profession. • Composition of flour • Factors affecting the baking quality of flour, • Role of sugar, eggs and fat in baking. • Wheat flour as a basic structure in breads; • Role of gluten in bread making; • Baking of cakes and cookies with different leavening agents (baking powder, baking soda) to evaluate texture, flavours and smoothness of the product; • Baking of pie/pastry dough without leavening agent.
2.	169/2020	Assistant Manager Food Services (BS-17), AFIC/NIHD, Ministry of Defence.	<p>iii. Second Class or Grade 'C' Master's Degree in Food Technology/ Nutrition and Dietetics or equivalent qualification from a University recognized by HEC.</p> <p>iv. Two (2) years post qualification practical experience in relevant field.</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I English = 20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> • Health and nutrition problems in Pakistan. • Disorders related to the affluent diet including coronary heart disease, dental caries, diabetes, hypertension and cancer. • Problems of undernutrition including protein, energy, mineral and vitamin deficiencies. • Physiological and nutritional aspects of dietary fibre, alcohol and food intolerance. • Food as a source of nutrients • Principles of food preservation. • Preservation by high temperature. • Preservation by removal of moisture • Preservation by fermentation and irradiation. • Preparatory operations. Browning – enzymatic and non-enzymatic. • Defects in cold stored commodities. • Preservation by freezing methods • Synthetic and natural food additives

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
3.	170/2020	Radiology Pharmacist (BS-17), AFIC/NIHD, Ministry of Defence.	<p>i. Second Class or Grade 'C' Bachelor's Degree in Pharmacy or equivalent qualification from a University recognized by HEC.</p> <p>ii. Two (2) years post qualification practical experience in any hospital in relevant field</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I English = 20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Vocabulary, Grammar Usage, Sentence Structuring.</p> <p>Part-II</p> <ul style="list-style-type: none"> • Organic Chemistry • Pharmaceutical Engineering • Biochemistry • Hospital Pharmacy Management • Dispensing Pharmacy • Anatomy, Physiology & Pathophysiology • Molecular Biology
4.	171/2020	Computer Officer (BS-17), Armed Forces Institute of Transfusion (AFIT), Ministry of Defence	<p>Second Class or Grade 'C' Master's Degree in Computer Science/IT or equivalent qualification from a University recognized by the HEC.</p> <p>OR</p> <p>Second Class or Grade 'C' Bachelor of Engineering in Computer System/Computer/Software or equivalent qualification from a University recognized by the HEC.</p> <p>OR</p> <p>Second Class or Grade 'C' Bachelor's Degree in Computer Science/IT (4 years duration) or equivalent qualification from a University recognized by HEC.</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I English =20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> • Operating System • Data Structure • Database Management System • System and Application software • Network & Security Issues • Data Communication and Networking • Automate Theory • Computer hardware Trends • Object Oriented Programming • Computer Peripheral Devices • Server, Router and Switches Management
5.	172/2020	Laboratory Technologist (BS-16), Armed Forces Institute of Transfusion (AFIT), Ministry of Defence	<p>Second Class or Grade 'C' B.Sc. Degree in Medical Laboratory Technology (MLT) or equivalent qualification from a University recognized by the HEC.</p> <p>OR</p> <p>i. Second Class or Grade 'C' B.Sc. Degree or equivalent qualification from a University recognized by the HEC.</p> <p>ii. One (1) Year diploma in Medical Technology.</p> <p>iii. Two (2) years post qualification experience in the relevant field.</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I English =20 marks</p> <p>Part-II Professional Test=80 marks</p>	<p>Part-I Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> • Blood Bank Facility, Work environment and safety • Blood Banking Quality Management System • Hemovigilance • Allogenic Blood Donor Section • Blood Components and preparation • Blood Group Antigens and antibodies • Pre transfusion testing and blood component administration • Infections Disease Screening of Blood Donor • Hazards of transfusion • Special Situation like irradiation, leucodepletion, neonatal transfusion and apheresis.

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6.	173/2020	Demonstrator (BS-17), Federal Medical & Dental College, Ministry of National Health Services, Regulations & Coordination	MBBS or equivalent medical qualifications recognized/ registered by the Pakistan Medical & Dental Council (PM&DC)	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test = 80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring. Part-II <ul style="list-style-type: none"> • Core courses of MBBS Degree Program. • Health Policies of the Government of Pakistan. • Care vs Cure for Health Management. • Major Challenges being faced by the Health Sector in Pakistan.
7.	174/2020	Social Welfare Officer (BS-17), AFIC/NIHD, Ministry of Defence.	Second Class or Grade 'C' Master's Degree in Sociology/ Public Administration/ Anthropology from University recognized by HEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring. Part-II <ul style="list-style-type: none"> • Community Organization and Development, • Social Welfare Vs Social Security • Concepts of Social Protection • Poverty and vulnerability • Social Research, • Social Statistics, • Organizational Behaviour and Human Resource, • Social Welfare Policy and Administration,
8.	175/2020	Supervisor Medical Store (Zakat/Bait-ul-Mal Section) (BS-16), AFIC/ NIHD, Ministry of Defence.	Second Class or Grade 'C' Bachelor's Degree in Pharmacy or equivalent qualification from a University recognized by HEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test = 80 marks	Part-I Grammar Usage, Sentence Structuring. Part-II <ul style="list-style-type: none"> • Organic Chemistry • Pharmaceutical Engineering • Biochemistry • Hospital Pharmacy Management • Dispensing Pharmacy • Anatomy, Physiology & Pathophysiology • Molecular Biology

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
9.	176/2020	Supervisor/Accountant (Zakat & Bait-ul-Mal Section) (BS-16), AFIC/NIHD, Ministry of Defence.	Second Class or Grade 'C' Master's Degree in Accounting and Finance/ Commerce/ Economics/ Business Administration or equivalent qualification from a University recognized by HEC. OR i. Second Class or Grade 'C' Bachelor's Degree in Finance/ Commerce/ Economics/ Business Administration or equivalent qualification from a University recognized by HEC. ii. Two (2) years post qualification experience in the field of Account and Finance.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test = 80 marks	Part-I Grammar Usage, Sentence Structuring. Part-II <ul style="list-style-type: none"> Accounting Principles & Procedures, Scrutiny of Record for Audit Purpose, Journal, ledger & Cash Book, Preparation of Annual Budget, Adjustment & Depreciation, Financial Planning & Cost Accounting, Head of Accounts, Re-appropriation of Accounts and Supplementary Grant, Public Procurement Rules, 2004 Basic IT Knowledge
10.	177/2020	Cardiac Perfusionist (BS-17), AFIC/ NIHD, Ministry of Defence.	Second Class or Grade 'C' Master's Degree in Biological Sciences or equivalent qualification from a University recognized by HEC. OR Second Class or Grade 'C' Bachelor's Degree (16 years education) in Cardiac Perfusion or equivalent qualification from a University recognized by HEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none"> Cardiovascular Anatomy Cardiovascular Physiology Cardiovascular Microbiology Cardiovascular Haematology Congenital Heart Disease and Surgical Treatment Acquired Heart Disease and Surgical Treatment The theoretical foundations of techniques and equipment for CPB Function, principles, problems, appropriate use of various devices associated with CPB
11.	179/2020	Medical Officer-Incharge Medical Stores (BS-17), AFIC/NIHD, Ministry of Defence.	MBBS or equivalent medical qualifications recognized/ registered by the Pakistan Medical & Dental Council (PM&DC)	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test = 80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring. Part-II <ul style="list-style-type: none"> Core courses of MBBS Degree Program. Health Policies of the Government of Pakistan. Care vs Cure for Health Management. Major Challenges being faced by the Health Sector in Pakistan.

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
12.	180/2020	<p>Lecturer (BS-17), A. English B. Mathematics C. Zoology D. Botany E. Health & Physical Education F. Arabic G. Islamiyat H. Home Economics I. Computer Science J. Education</p> <p>Federal College of Education, Ministry of Federal Education and Professional Training.</p>	<p>Second Class or Grade 'C' Master's Degree in the relevant subject with M.Ed.</p>	<p>Objective Type Test (MCQ) Part-I English =20 marks Part-II Subject Test = 50 marks Part-III Professional Test=30 marks</p> <p>Note:</p> <ul style="list-style-type: none"> ▪ For the subject of Education, there should be two parts, part-I is English Test (20 Marks) and part-II is Professional Test (80 Marks). ▪ In Language Subjects (i.e Arabic and English), English part for 20 marks will not be included. There will be 70% subject Test and 30% Professional Test. 	<p><u>For (A) English</u></p> <p><u>Part-I (Master's Level) (70 Marks)</u></p> <ul style="list-style-type: none"> • Vocabulary • Structuring of sentences. • Linguistics. • Grammar. • Syntax. • Diction. • Drama: Shakespeare (Hamlet; King Lear; Twelfth Night), William Congreve (The Way of the World), Shaw (Pygmalion; Heartbreak House), Harold Pinter (The Caretaker), Samuel Beckett (Waiting for Godot), Eugene O'Neill (Long Day's Journey into Night) <p><u>Part-II (30 Marks)</u></p> <ul style="list-style-type: none"> • Teaching Techniques and Methodology, • Classroom Management and Discipline, • Testing and Evaluation, <p><u>For (B) Mathematics</u></p> <p><u>Part-I</u> Vocabulary, Grammar Usage, Sentence Structuring.</p> <p><u>Part-II (Masters Level)</u></p> <ul style="list-style-type: none"> • Calculus/Differentiation, Integration, Limits of continuity • Discrete Structures/Discrete Mathematics, • Communication Skills for Mathematicians, • Computing Tools for Mathematicians, • Classical Mechanics, • Mathematical Statistics, • Real Analysis, • Mathematical Spaces (Sets, Vector Spaces, Metric Spaces, topological spaces Tensors, • Differential Equations. <p><u>Part-III</u></p> <ul style="list-style-type: none"> • Teaching Techniques and Methodology • Classroom Management and Discipline • Testing and Evaluation

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
					<p><u>For (C) Zoology</u></p> <p><u>Part-I</u> Vocabulary, Grammar Usage, Sentence Structuring</p> <p><u>Part-II (Masters Level)</u></p> <ul style="list-style-type: none"> • Eco System, • Classification of Fish, Reptiles, Mammals, • Classification of Mollusks, Edinodermata, • Theories of Evolution, • Mammalian Hormonal System, • Membrane System, • Mammalian Gametogenesis and Fertilization, • Multiple Alleles. • Mendelian laws of inheritance, • Reproduction and Development, <p><u>Part-III</u></p> <ul style="list-style-type: none"> • Teaching Techniques and Methodology, • Classroom Management and Discipline, • Testing and Evaluation, <hr/> <p><u>For (D) Botany</u></p> <p><u>Part-I</u> Vocabulary, Grammar Usage, Sentence Structuring.</p> <p><u>Part-II (Masters Level)</u></p> <ul style="list-style-type: none"> • Algae, • Fungi, • Bryophytes • Pteridophytes • Gymnosperms, • Angiosperms, • Plant Physiology, • Ecology, • Cytology, • Genetics, • Evolution <p><u>Part-III</u></p> <ul style="list-style-type: none"> • Educational Planning and Management • Curriculum Development & Instructional Technology • Education Psychology and Student’s Learning

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
					<p><u>For (E) Health & Physical Education</u></p> <p><u>Part-I</u> Vocabulary, Grammar Usage, Sentence Structuring.</p> <p><u>Part-II (Masters Level)</u></p> <ul style="list-style-type: none"> • Philosophy of Physical Education, • Curriculum Development in Physical Education, • Psychology of Physical Education, • Rules of games, • Basics of Human Anatomy • Administrative and Management in Sports, • Sports Nutrition, • Trauma and Rehabilitation, • Research Methodology in Physical Education • Test, Measurement and Evaluation in Physical Education & Sports • Athletic Injuries, • Handicap Sports Organization <p><u>Part-III</u></p> <ul style="list-style-type: none"> • Teaching Techniques and Methodology • Classroom Management and Discipline • Testing and Evaluation
					<p><u>For (F) Arabic</u></p> <p><u>Part-I (Master's Level) (70 Marks)</u></p> <ul style="list-style-type: none"> • History of Arabic literature • History of Semitic Languages • Arabic Phonetic • Arabic Poetry at the Dawn of Islam • Arabic Syntax • Arabic Vocabulary, • Arabic Grammar usage, • Arabic Sentence Structure <p><u>Part-II (30 Marks)</u></p> <ul style="list-style-type: none"> • Teaching Techniques and Methodology • Classroom Management and Discipline • Testing and Evaluation

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
					<p>For (G) Islamic Studies</p> <p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II (Masters Level)</p> <p>قرآن کا بنیادی موضوع / متن ☆ سیرت النبی ﷺ ☆ فقہ: جامعیت، اختلاف رائے اور عصر حاضر کے تناظر میں مذہب کی تشریح۔ ☆ تعارف اسلام ☆ انسانی زندگی میں دین کی اہمیت ☆ اسلام کے نمایاں پہلو ☆ اسلامی عقائد کے انفرادی اور اجتماعی اثرات ☆ انسانی حقوق۔ اسلام کی نظر میں ☆ اسلام اور عصر حاضر کے چیلینجز ☆ اسلامی نظام حکمرانی کا ڈھانچہ ☆ سرکاری ملازمین کی ذمہ داریاں ☆ اسلامی ضابطہ حیات ☆</p> <p>Part-III</p> <ul style="list-style-type: none"> • Teaching Techniques and Methodology • Classroom Management and Discipline • Testing and Evaluation
					<p>For (H) Home Economics</p> <p>Part-I Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II (Masters Level)</p> <ul style="list-style-type: none"> ▪ Introduction to Home Economics ▪ Fundamentals of Food and Nutrition ▪ Nutrition Health and Prevention ▪ Entrepreneurship for home based industry ▪ House Keeping Management ▪ Methods of Research in Home Economics ▪ Childcare and Development Guidance ▪ Family Problems and Intervention strategies <p>Part-III</p> <ul style="list-style-type: none"> ▪ Teaching Techniques and Methodology ▪ Classroom Management and Discipline ▪ Testing and Evaluation

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
					<p><u>For (I) Computer Science</u></p> <p><u>Part-I</u> Vocabulary, Grammar Usage, Sentence Structuring</p> <p><u>Part-II (Masters Level)</u></p> <ul style="list-style-type: none"> • Computer Hardware/Software, • Data Communication & Networking, • C/C++ Language, • Visual Basic, • Operating System Unix/Linux • Windows 7, 8 , 8.1, • Oracle/PLSQL, • System Analysis & Design. • Web Programming, <p><u>Part-III</u></p> <ul style="list-style-type: none"> • Teaching Techniques and Methodology, • Classroom Management and Discipline, • Testing and Evaluation,
					<p><u>For (J) Education</u></p> <p><u>Part-I (20 Marks)</u> Vocabulary, Grammar Usage, Sentence Structuring,</p> <p><u>Part-II (80 Marks)</u></p> <ul style="list-style-type: none"> • Development of Education in Pakistan, • Educational Reforms in Pakistan, • Education Policy 2009, its Targets and Achievements • Philosophy of Education, • Sociology of Education, • Educational Psychology, • Educational Guidance & Counselling, • Educational Planning & Management, • Educational Administration and Supervision, • Classroom/Institutional Management and Discipline • Curriculum Development & Instructional Technology • Teaching Techniques & Methodology, • Testing & Evaluation.

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
13.	181/2020	Medical Records Officer (BS-17), AFIC/ NIHD, Ministry of Defence.	<p>Second Class or Grade 'C' Master's Degree in Health Care Management/ Hospital Management/ Business Administration (Hospital and Health Care Management) from a university recognized by HEC.</p> <p>OR</p> <p>i. Second Class or Grade 'C' Bachelor's Degree in Health Care Management/ Hospital Management/ Business Administration (Hospital and Health Care Management) from a university recognized by HEC.</p> <p>ii. Two (2) years post qualification experience of maintenance of Medical Records in hospitals</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I</p> <p>English = 20 marks</p> <p>Part-II</p> <p>Professional Test=80 marks</p>	<p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring,</p> <p>Part-II</p> <ul style="list-style-type: none"> • Traditional Management vs. modern Health Care Management , • Public Sector Hospitals and Level of offered facilities, • Effects of Globalization in Health care, • Concept of Corporate Hospital in developing countries, • Infrastructure and lay out of an ideal corporate hospital, • Functioning of modern hospitals & changing need of patients, • Hospitality in Hospital Care, • Invasive and non-invasive diagnostic facilities in modern hospital, • Care offered in Specialty and Super specialty Hospitals • Healthcare Management as a profession, • Introduction to Health Management, • Pakistan Health Policy 2009,
14.	183/2020	Assistant Librarian (BS-17), AFIC/ NIHD, Ministry of Defence.	<p>Second Class or Grade 'C' Bachelor's Degree in Library Science/Library and Information Science or equivalent qualification from a University recognized by HEC.</p> <p>OR</p> <p>i. Second Class or Grade 'C' Bachelor's Degree with Diploma in Library Science or equivalent qualification from a University recognized by HEC.</p> <p>ii. Two (2) years post qualification experience in the relevant field.</p>	<p>Objective Type Test (MCQ)</p> <p>Part-I</p> <p>English = 20 marks</p> <p>Part-II</p> <p>Professional Test=80 marks</p>	<p>Part-I</p> <p>Vocabulary, Grammar Usage, Sentence Structuring</p> <p>Part-II</p> <ul style="list-style-type: none"> • Information Sources and Services • Cataloguing: Theory and Practice • Procurement and Maintenance of Library Books • Library Automation/Information Storage & Retrieval • Research Methods & Techniques for Librarians • Public Records, Rare Material & their Conservation • Management of Serials Publications • Rules & Procedure regarding Write Off the Library Losses

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
15.	184/2020	Supervisor Food Services (BS-16), AFIC/ NIHD, Ministry of Defence.	Second Class or Grade 'C' Bachelor's Degree in Food Technology/ Nutrition and Dietetics or equivalent qualification from a University recognized by HEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Grammar Usage, Sentence Structuring. Part-II <ul style="list-style-type: none"> • Fundamentals of Food & Nutrition • Principles of Diet Therapy. • Planning & Preparation of Balanced Diet. • Physiological aspect of Nutrition • Energy Value of Foods • Sanitation and Hygiene • Regulation of food intake, • Nutritional requirements • Nutrition Health & Prevention
16.	186/2020	Charge Nurse (BS-16), Federal General Hospital, Chak Shehzad, Islamabad, Cabinet Division.	Bachelor's Degree in Nursing or equivalent recognized by the Pakistan Nursing Council with valid registration with PNC. OR Three years Diploma in General Nursing with one year diploma in Midwifery (For Female) with valid registration with PNC. OR Three years Diploma in General Nursing with one year diploma in Midwifery (For Male) with valid registration with PNC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 Marks	Part-I Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none"> • Basic Medical Sciences • General Nursing • Ward Administration • Hospitality of the Patients • Care vs. Cure for Health Management • Developing Training & Instructional Materials for Nursing Courses.
17.	187/2020	Civilian Labour Officer (BS-16), Corps of E & ME, Ministry of Defence	B.A. OR In case of retired Army officers (Not JCOs): Matric or equivalent	Objective Type Test (MCQ) Part-I English = 20 marks Part-II General Intelligence/ Professional Test=80 marks	Part-I Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none"> ▪ Basic Arithmetic <ul style="list-style-type: none"> – Algebra – Ratios – Percentages ▪ Current Affairs. <ul style="list-style-type: none"> – Issues/Challenges at National and International Level during the last 2 years • Pakistan Labour Policy, 2010 • Labour welfare and safety laws, • Industrial health and safety problems related to labour welfare.

S. No	Case No. F.4-	Particulars of Post(s)	Qualifications/Experience for the Posts	Test Specification	Topics of Syllabi
18.	188/2020	Programmer (BS-17) Pakistan Meteorologist Department, Cabinet Secretariat (Aviation Division)	Second Class or Grade 'C' Master's Degree in Computer Science/Information Technology or equivalent qualification from a university recognized by HEC. OR Second Class or Grade 'C' Bachelor's Degree in Computer Science/BIT (4 years duration) or equivalent from a university recognized by HEC.	Objective Type Test (MCQ) Part-I English = 20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring. Part-II <ul style="list-style-type: none"> • Fundamental Programming, • Data types, • Program Logic, • Development of Basic Algorithms, • Computer Networks and Internet, • Designing Solution & Testing, • Visual Basic, C++, Java, Unix/Red Hat Linux Operating System, • Multiple Browsers, • Search Engine Optimization, • Web Development
19.	189/2020	Meteorologist, (BS-17), Pakistan Meteorological Department, Aviation Division, Cabinet Secretariat	i. Second Class or Grade 'C' Master's Degree in Meteorology/Seismology/ Hydro-Meteorology/ Hydrology/Geo-Physics/ Geology/ Geography/ Physical Chemistry/ Physics/ Mathematics/ Environment/ Space Science/ Agriculture Meteorology/ Computer Science from a University recognized by HEC. ii. Graduation with Physics or Mathematics from a University recognized by HEC.	Objective Type Test (MCQ) Part-I English =20 marks Part-II Professional Test=80 marks	Part-I Vocabulary, Grammar Usage, Sentence Structuring Part-II <ul style="list-style-type: none"> • Meteorology, • Climatology, • Basics of Physics, • Basic Maths, • Environmental Studies, • Research/Analysis.

**Schemes and Syllabi for Written Examination (Descriptive) for Posts in
BS-20 advertised under Consolidated Advertisement No. 09/2020**

Case No.	190/2020
Particulars of post	Chief (IT) (BS-20), Federal Public Service Commission
Minimum Qualification & Experience:	<p>i. Second Class or Grade C Master Degree in Computer Science or Information Technology or equivalent qualification from a university recognized by the HEC</p> <p align="center">OR</p> <p>Second Class or Grade "C" Bachelor's (4 years duration) degree of BCS or BS (IT) or BS (CS) or equivalent qualification from a university recognized by the HEC.</p> <p align="center">OR</p> <p>Second Class or Grade C Bachelor's degree in Software Engineering or Computer Engineering or Computer System Engineering or equivalent qualification from a university recognized by the HEC with registration from Pakistan Engineering Council.</p> <p>ii. Seventeen (17) years post qualification experience in the field of Information Technology/ System Analysis & Design/ Software Development/ Computer Programming/ Website Management/ Administration of Data-base System.</p>

PAPER: PROFESSIONAL (100 MARKS)

Analysis Paper: Candidates will be required to analyse a situation related to advertised post and suggest/draw suitable solution comprising approximately **1000 words**. Candidate's research based knowledge as well as articulation, expression and technical treatment of the situation will be examined.

OR

Case Study: Candidates will be given real situation case studies related to advertised posts/ organization concerned and will be expected from the candidates to present (i) identification of issues (ii) evaluation of issues (iii) legal or case related theories (iv) evaluation of case facts if required and (v) possible solution of the case or writing judicial order, if the case so requires.

Schemes and Syllabi for Written Examination (Descriptive) for All Posts in BS-18 & BS-19 included in Consolidated Advertisement No. 09/2020

PAPER-I: ENGLISH

Max Marks: 100

Time Allowed: 3 Hours

- (i) **English Essay-50 Marks:** Candidates will be required to write an Essay in English comprising **1500 words** from a set of **six given topics**. Candidates are expected to reflect comprehensive and research based knowledge on a selected topic. Candidate's articulation, expression and technical approach to the style of English Essay writing will be examined.
- (ii) **English (Composition and Précis)-50 Marks:**
The examination will test the candidate's abilities to handle Précis Writing, Reading Comprehension, Sentence Structuring, Translation, Grammar and Vocabulary, etc.
- Précis Writing (10 marks):** A selected passage with an orientation of generic understanding and enough flexibility for compression shall be given for précising and suggesting an appropriate title.
- Reading Comprehension (10 marks)**
A selected passage that is rich in substance but not very technical or discipline-specific shall be given, followed by five questions, each carrying 2 marks.
- Grammar and Vocabulary (10 marks):** Correct usage of Tense, Articles, Prepositions, Conjunctions, Punctuation, Phrasal Verbs, Synonyms and Antonyms etc.
- Sentence Correction (5 marks):** Ten sentences shall be given each having a clear structural flaw in terms of grammar or punctuation. The candidates shall be asked to rewrite them with really needed correction only, without marking unnecessary alterations. No two or more sentences should have exactly the same problem, and 2-3 sentences shall be based on correction of punctuation marks.
- Grouping of Words (5 marks):** A random list of ten words of moderate standard (neither very easy nor utterly unfamiliar) shall be given, to be grouped by the candidates in pairs of those having similar or opposite meaning, as may be clearly directed in the question.
- Pairs of Words (5 marks):** Five pairs shall be given of seemingly similar words with different meanings, generally confused in communication, for bringing out the difference in meaning of any five of them by first explaining them in parenthesis and then using them in sentences.
- Translation (5 marks):** Ten short Urdu sentences involving structural composition, significant terms and figurative/idiomatic expressions shall be given, to be accurately translated in English.

SUGGESTED READINGS

Sr. No.	Title	Author
1.	English Grammar in Use	Raymond Murphy (Cambridge University Press)
2.	Practical English Usage	M. Swan (Oxford University Press)
3.	The Little, Brown Handbook	H. Ramsey Flower & Jane Aaron (The Little, Brown & Co; Harper Collins)
4.	A University English Grammar	R. Quirk & S. Greenbaum (ELBS; Longmans)
5.	Write Better, Speak Better	Readers Digest Association
6.	Modern English in Action	Henry Christ (D.C. Heath & Co.)
7.	Exploring the World of English	Syed Saadat Ali Shah

PAPER-II: PROFESSIONAL

Max Marks: 100

Time Allowed: 3 Hours

Case No.	178/2020
Particulars of post	Assistant Professor (BS-18 Plus Special Allowance Rs. 55,000/- and Health Allowance Rs.20,000/- per month), Federal Medical & Dental College, Ministry of National Health Services, Regulations & Coordination.
Minimum Qualification & Experience:	<ul style="list-style-type: none"> i. MBBS or equivalent medical qualifications recognized/ registered by the Pakistan Medical & Dental Council (PM&DC). ii. PM&DC recognized Level II b or Level III qualifications in the respective basic subjects. Or Equivalent PM&DC Level II a, b or Level III qualifications in the respective specialty approved for teaching by SRC and recognized/ registered by PM&DC. iii. Two (2) years teaching experience as Demonstrator before or after Level II b. No experience required for level III post graduation who can be appointed directly as Assistant Professor. <p>CATEGORIES: (A) PHYSIOLOGY (B) PHARMACOLOGY</p>

For (A) PHYSIOLOGY**Part-I: (MCQ)**

25 MCQ Questions on Part-II & Part-III.

25 Marks**Part-II: (Qualification Based) (Descriptive)**

Core courses of MBBS Degree

50 Marks**Part-III: (Professional) (Descriptive)**Core courses of Level II (b) qualification in **Physiology**.**25 Marks****For (B) PHARMACOLOGY****Part-I: (MCQ)**

25 MCQ Questions on Part-II & Part-III.

25 Marks**Part-II: (Qualification Based) (Descriptive)**

Core courses of MBBS Degree

50 Marks**Part-III: (Professional) (Descriptive)**Core courses of Level II (b) qualification in **Pharmacology**.**25 Marks**

PAPER-II: PROFESSIONAL**Max Marks: 100****Time Allowed: 3 Hours**

Case No.	182/2020
Particulars of post	Deputy Chief Cardiac Perfusionist (BS-18), AFIC / NIHD, Ministry of Defence.
Minimum Qualification & Experience:	i. Second Class or Grade 'C' Master's Degree in Biological Sciences or equivalent qualification from a University recognized by HEC. OR Second Class or Grade 'C' Bachelor's Degree (16 years education) in Cardiac Perfusion or equivalent qualification from a University recognized by HEC. ii. Five (5) years post qualification experience in relevant field.

Part-I: 25 Marks (MCQ)

- 25 MCQ Questions on Part-II.

Part-II (Professional) (Subjective) : 75 Marks**I. Cardiovascular**

- Cardiovascular Anatomy
- Cardiovascular Physiology
- Cardiovascular Microbiology
- Cardiovascular Haematology

II. Heart Diseases

- Congenital Heart Disease and Surgical Treatment
- Acquired Heart Disease and Surgical Treatment

III. Perfusion Technology

- The theoretical foundations of techniques and equipment for CPB
- The function, principles, problems, appropriate use and application of the various devices associated with CPB
- Various physical principles associated with pressure/flow relationships in the circulatory and extracorporeal systems
- Various devices and techniques utilized to reduce a patient's exposure to homologous blood transfusion
- Normal and the abnormal electrolyte values related to physiological disturbances caused by CPB, including the use of cardioplegic solutions
- The role of hyper-, hypo-, and normothermia during CPB,
- The application, calibration and use of various safety devices, measurement devices
- The ethical, professional and legal implications of the practice of perfusion care
- The interplay between and among the various participants within the surgical team
- Various techniques utilized in the preservation of the myocardium
- Basic Goals and Concepts In Myocardial Protection
- Heparinization anticoagulation and other methods of preserving the number and function of various coagulation processes within the blood during CPB
- The application of hemodilution CPB
- The benefits and detriments associated with CPB

- The various effects of CPB and air-blood interface
- The principles associated with ECMO support and its application as related to perfusion care

SUGGESTED READINGS

S. No.	Title	Author
1.	Cardiopulmonary Bypass: Current Concepts and Controversies.	John H Tinker
2.	Cardiovascular Physiology Concepts	Richard E Klabunde. Lippincott Williams& Wilkins
3.	Cardiopulmonary Bypass: Principles and Techniques of Extracorporeal Circulation	Christina T. Mora (Editor), R.A. Guyton, Springer
4.	Techniques in Extracorporeal Circulation	Philip Kay & Chris Munsch
5.	Daileys Notes on Blood	John F Dailey
6.	Cardiopulmonary Bypass Principles and Practice Second Edition,	Glenn P. Gravlee
7.	Mechanical Circulatory Support.	A Hodder Arnold Publication
8.	Manual of Clinical perfusion	

PAPER-II: PROFESSIONAL**Max Marks: 100****Time Allowed: 3 Hours**

Case No.	185/2020
Particulars of post	Deputy Director (BS-18), Cabinet Secretariat, Establishment Division.
Minimum Qualification & Experience:	<p>i. Second Class or Grade 'C' Master's Degree in Public Administration/ Human Resource Management & Development/ Economics/ Statistics from a University recognized by HEC.</p> <p>ii. Five (5) years post qualification experience in a supervisory capacity in BS-17 and above in the field of compilation and maintenance of personnel data i.e. PERs, ICP Charts and Service History Cards of officers, in a Government/Semi Government Organization.</p>

Part-I: 25 Marks (MCQ)

- 25 MCQ Questions on Part-II & III.

Part-II: 25 Marks (Descriptive)

(Human Resource, Financial Management,
Quality Management and Information Technology)

I. Human Resource and Financial Management

Definition, Significance and Scope of Human Resource Management; Organization—Types of Organization, Principles of Organization, Public Sector Enterprises; Approaches to Human Resource Management. Personnel Administration—Tools of Personnel Management: Selection, Training, Promotion, Compensation, Discipline; Communication, Communication Channels and Principles of Public Relations; Elements of Financial Administration, Principles of Budgeting, Auditing and Accounting.

II. Basic Concept of Quality Management

ISO-9000, ISO-13000, other certifications regarding quality measurement; management, management for Results, Setting Performance Goals and Targets; Job Analysis: Job Description, Job Specification, Performance Evaluation;

III. Information Technology and MS Office

Fundamentals of Computer: CPU, Memory Devices, Characteristics of Computer and related material; Microsoft Word, Microsoft Power Point, Microsoft Excel; Search Engines, Web Design, Email, Internet Surfing, Social Networking (Facebook, Twitter, etc); General Introduction to Virus and Antivirus utilities;

Part-III: 50 Marks

(Public Administration & Office Management)

- I. Public Administration:** Nature and scope, Role of Public Administration in a modern Welfare State;
- II. Bureaucracy:** Concept of Bureaucracy, Theories of Bureaucracy, Ecology of Bureaucracy; Bureaucracy of Pakistan as a Change Agent;

- III. **Administrative Leadership:** Approaches to the study of Leadership, Forms of Leadership, Leadership qualities;
- IV. **Administrative Accountability:** Internal and External Controls; Executive Control, Legislative Control, Judicial Control, Ombudsman, Public Opinion and Pressure Groups; Problems of Administrative Accountability in Pakistan;
- V. **Planning:** Types of Plans, Planning Process; Principles of Planning, Planning Machinery in Pakistan;
- VI. Civil Servant Act 1973 and Rules made thereunder;
- VII. PPRA Ordinance 2002 and Rules 2004.

SUGGESTED READINGS

S. No.	Title	Author
1.	Human Resource Management	H.T.Graham & Roger Bennett
2.	Management	James A.F.Stoner, R.Eward Freeman, Daniel R.Gilbert Jr.
3.	Understanding Computer: Today and Tomorrow	Deborah Morley, Charles Parker
4.	MS Office 365 Handbook: 2013 Edition	Kevin Wilson
5.	An Introduction to the Public Administration	E.N. Cladden
6.	Bureaucracy: Modern Society	Pebr, M.Blau.
7.	Public Administration for a Welfare State	Paul Ableby
8.	The Bureaucracy of Pakistan	Charles F. Kennedy