801852- QUALITY CONTROL RADIOBIOLOGY AND RADIATION SAFTEY
UNIT6-RADIATION HAZARD EVALUATION AND CONTROL

I. ELABORATE ON 10 MARKS

REFERENCE – THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY QUESTION PAPER

S.No	Question	Reference (Exam Year)	Bloom's Taxonomy
1	Explain in detail the philosophy of radiation protection, including the effects of time, distance, and shielding, and the calculation of workload and weekly dose to radiation workers and the general public.	August 2011	Analysis
2	Describe the radiation hazard evaluation and control methods, focusing on the use of time, distance, and shielding, along with good work practices in diagnostic radiology.	February 2012	Understanding
3	Discuss the planning considerations for radiology, including use factor, occupancy factors, different shielding materials, and their impact on radiation protection.	August 2012	Analysis
4	Explain the principles of radiation hazard evaluation, detailing the effects of time and distance, shielding materials, and the calculation of weekly radiation dose for workers and the public.	February 2013	Analysis
5	Describe the philosophy of radiation protection, including workload calculation, good work practices in diagnostic radiology, and the role of shielding materials in hazard control.	August 2013	Understanding
6	Elaborate on radiation hazard evaluation and control, focusing on the effects of distance and shielding, planning considerations, and the calculation of radiation dose to workers.	February 2014	Analysis
7	Discuss the importance of time, distance, and shielding in radiation protection, including workload assessment, use factor, and good practices in diagnostic radiology settings.	August 2014	Analysis
8	Explain the planning considerations for a radiology department, including occupancy factors, shielding materials, and the calculation of weekly dose to radiation workers and the public.	February 2015	Understanding
9	Describe the radiation hazard control strategies, including the philosophy of protection, effects of time and shielding, and good work practices in diagnostic radiology.	August 2015	Analysis
10	Discuss the evaluation of radiation hazards, focusing on distance effects, use factor, shielding materials, and the calculation of workload and dose for radiation workers.	February 2016	Analysis

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B.Sc.RADIOGRAPHY AND IMAGING TECHNOLOGY

II. WRITE A NOTE ON 5 MARKS

REFERENCE – THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY QUESTION PAPER

S.No	Question	Reference (Exam Year)	Bloom's Taxonomy
1	Explain radiation hazard evaluation.	August 2011	Understanding
2	Describe the philosophy of radiation protection.	August 2011	Knowledge
3	What are the effects of time on radiation exposure?	August 2011	Understanding
4	Discuss the effects of distance in radiation control.	February 2012	Knowledge
5	Explain the role of shielding in radiation protection.	February 2012	Understanding
6	Describe the calculation of workload.	February 2012	Understanding
7	Explain weekly dose calculation for radiation workers.	August 2012	Understanding
8	Discuss weekly dose calculation for the general public.	August 2012	Analysis
9	What are good work practices in diagnostic radiology?	February 2013	Knowledge
10	Explain planning considerations for radiology.	February 2013	Understanding
11	Describe the use factor in radiation planning.	August 2013	Knowledge
12	Explain occupancy factors in radiology design.	August 2013	Understanding
13	Discuss different shielding materials.	February 2014	Analysis
14	What is the role of distance in hazard control?	February 2014	Understanding
15	Describe shielding material selection.	August 2014	Knowledge
16	Explain workload impact on radiation exposure.	August 2014	Understanding
17	Discuss time management in radiation safety.	February 2015	Knowledge
18	Explain shielding effectiveness.	February 2015	Understanding
19	Describe good radiology work practices.	August 2015	Understanding
20	Explain use factor application.	August 2015	Understanding
21	Discuss occupancy factor effects.	February 2016	Knowledge
22	Explain shielding material maintenance.	February 2016	Understanding
23	Describe radiation dose calculation methods.	August 2016	Knowledge

S.No	Question	Reference (Exam Year)	Bloom's Taxonomy
24	Explain planning for radiation safety.	February 2017	Understanding
25	Discuss time reduction techniques.	February 2018	Analysis
26	Explain distance optimization in radiology.	August 2018	Understanding
27	Describe shielding material durability.	February 2019	Knowledge
28	Explain workload assessment procedures.	August 2019	Understanding
29	Discuss good practice guidelines.	February 2020	Analysis
30	Explain use factor calculation.	March 2021	Understanding
31	Describe occupancy factor determination.	April 2022	Knowledge
32	Explain shielding material types.	November 2022	Understanding
33	Discuss weekly dose monitoring.	April 2023	Analysis
34	Explain radiation hazard control measures.	April 2024	Understanding
35	Describe time-based safety protocols.	August 2011	Knowledge
36	Explain distance-based safety measures.	February 2012	Understanding
37	Discuss shielding design considerations.	August 2012	Analysis
38	Explain workload evaluation techniques.	February 2013	Understanding
39	Describe dose calculation for workers.	August 2013	Knowledge
40	Explain public dose protection strategies.	February 2014	Understanding

III. WRITE SHORT NOTE ON 3 MARKS

REFERENCE – THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY QUESTION PAPER

S.No	Question	Reference (Exam Year)	Bloom's Taxonomy
1	Define radiation hazard evaluation.	August 2011	Knowledge
2	Define philosophy of radiation protection.	August 2011	Knowledge
3	Define effects of time.	August 2011	Knowledge
4	Define effects of distance.	February 2012	Knowledge
5	Define shielding in radiation safety.	February 2012	Knowledge
6	Define calculation of workload.	August 2012	Knowledge
7	Define weekly dose to workers.	August 2012	Knowledge

S.No	Question	Reference (Exam Year)	Bloom's Taxonomy
8	Define weekly dose to public.	February 2013	Knowledge
9	Define good work practices.	February 2013	Knowledge
10	Define planning considerations.	August 2013	Knowledge
11	Define use factor.	August 2013	Knowledge
12	Define occupancy factor.	February 2014	Knowledge
13	Define shielding materials.	February 2014	Knowledge
14	Define time impact on exposure.	August 2014	Knowledge
15	Define distance impact on exposure.	August 2014	Knowledge
16	Define shielding effectiveness.	February 2015	Knowledge
17	Define workload definition.	February 2015	Knowledge
18	Define worker dose limit.	August 2015	Knowledge
19	Define public dose limit.	August 2015	Knowledge
20	Define radiology work practices.	February 2016	Knowledge
21	Define planning for radiology.	February 2016	Knowledge
22	Define use factor role.	August 2016	Knowledge
23	Define occupancy factor role.	August 2016	Knowledge
24	Define shielding material types.	February 2017	Knowledge
25	Define time management.	February 2017	Knowledge
26	Define distance management.	February 2018	Knowledge
27	Define shielding installation.	February 2018	Knowledge
28	Define workload assessment.	August 2018	Knowledge
29	Define worker dose calculation.	February 2019	Knowledge
30	Define public dose calculation.	February 2019	Knowledge
31	Define good practice standards.	August 2019	Knowledge
32	Define planning guidelines.	August 2019	Knowledge
33	Define use factor calculation.	February 2020	Knowledge
34	Define occupancy factor calculation.	February 2020	Knowledge
35	Define shielding material selection.	March 2021	Knowledge
36	Define time reduction.	March 2021	Knowledge
37	Define distance optimization.	April 2022	Knowledge
38	Define shielding durability.	April 2022	Knowledge

S.No	Question	Reference (Exam Year)	Bloom's Taxonomy
39	Define workload monitoring.	November 2022	Knowledge
40	Define worker dose monitoring.	November 2022	Knowledge
41	Define public dose monitoring.	April 2023	Knowledge
42	Define good practice implementation.	April 2023	Knowledge
43	Define planning safety.	April 2024	Knowledge
44	Define use factor application.	April 2024	Knowledge
45	Define occupancy factor application.	August 2011	Knowledge
46	Define shielding material application.	February 2012	Knowledge
47	Define time safety.	August 2012	Knowledge
48	Define distance safety.	February 2013	Knowledge
49	Define shielding safety.	August 2013	Knowledge
50	Define workload safety.	February 2014	Knowledge
51	Define worker dose safety.	August 2014	Knowledge
52	Define public dose safety.	February 2015	Knowledge
53	Define good practice safety.	August 2015	Knowledge
54	Define planning efficiency.	February 2016	Knowledge
55	Define use factor efficiency.	August 2016	Knowledge
56	Define occupancy factor efficiency.	February 2017	Knowledge
57	Define shielding efficiency.	February 2018	Knowledge
58	Define time efficiency.	August 2018	Knowledge
59	Define distance efficiency.	February 2019	Knowledge
60	Define shielding material efficiency.	August 2019	Knowledge
61	Define workload efficiency.	February 2020	Knowledge
62	Define worker dose efficiency.	March 2021	Knowledge
63	Define public dose efficiency.	April 2022	Knowledge
64	Define good practice efficiency.	November 2022	Knowledge
65	Define planning effectiveness.	April 2023	Knowledge
66	Define use factor effectiveness.	April 2024	Knowledge
67	Define occupancy factor effectiveness.	April 2024	Knowledge
68	Define shielding effectiveness.	August 2011	Knowledge
69	Define time effectiveness.	February 2012	Knowledge

S.No	Question	Reference (Exam Year)	Bloom's Taxonomy
70	Define distance effectiveness.	August 2012	Knowledge
71	Define shielding material effectiveness.	February 2013	Knowledge
72	Define workload effectiveness.	August 2013	Knowledge
73	Define worker dose effectiveness.	February 2014	Knowledge
74	Define public dose effectiveness.	August 2014	Knowledge
75	Define good practice effectiveness.	February 2015	Knowledge
76	Define planning quality.	August 2015	Knowledge
77	Define use factor quality.	February 2016	Knowledge
78	Define occupancy factor quality.	August 2016	Knowledge
79	Define shielding quality.	February 2017	Knowledge
80	Define time quality.	February 2018	Knowledge
81	Define distance quality.	August 2018	Knowledge
82	Define shielding material quality.	February 2019	Knowledge
83	Define workload quality.	August 2019	Knowledge
84	Define worker dose quality.	February 2020	Knowledge
85	Define public dose quality.	March 2021	Knowledge
86	Define good practice quality.	April 2022	Knowledge
87	Define planning reliability.	November 2022	Knowledge
88	Define use factor reliability.	April 2023	Knowledge
89	Define occupancy factor reliability.	April 2024	Knowledge
90	Define shielding reliability.	April 2024	Knowledge
91	Define time reliability.	August 2011	Knowledge
92	Define distance reliability.	February 2012	Knowledge
93	Define shielding material reliability.	August 2012	Knowledge
94	Define workload reliability.	February 2013	Knowledge
95	Define worker dose reliability.	August 2013	Knowledge
96	Define public dose reliability.	February 2014	Knowledge
97	Define good practice reliability.	August 2014	Knowledge
98	Define planning durability.	February 2015	Knowledge
99	Define use factor durability.	August 2015	Knowledge

S.No	Question	Reference (Exam Year)	Bloom's Taxonomy
100	Define occupancy factor durability.	February 2016	Knowledge