| Damietta University<br>Faculty of Science<br>Physics Department |  | 4th year Physics<br>Code:406 ph<br>Oral Exam |
|---|---|---|
| **Final Exam August 2020** | | |
| **Reactor Physics** | | |

Put (√) or false (x) for the following sentences and correct the false statement:

1- The slowing down power $SDP = \xi \Sigma_s$. ( )

2- $P(E \to E') = \frac{1}{(1-\alpha)E'}, \alpha = (\frac{A-1}{A+1})^2$. ( )

3- $\bar{\mu}_0$ is proportional to the mass number A. ( )

4-For Milne problem: $J_-(r_s, \Omega, E, t) = 0, \bar{n}.\bar{\Omega} < 0$. ( )

5-The spectrum of prompt neutrons is obeying Gaussian distribution. ( )

6-For $P_1$-approximation: $\phi(x,\mu) = \frac{1}{4\pi}(\phi_0(x) - 3\mu\phi_1(x))$. ( )

7- $U = lin(\frac{E}{E'})$. ( )

8-For point source: As $r \to 0, Q_0 = 4\pi J$ ( )

9-The slowing down density $q(E,x) = \xi \Sigma \phi(E,x)$ ( )

10- For delayed fission, the steady state means $\beta_j F\phi(r,\Omega,E) = \lambda_j C_j(r)$. ( )